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AMI SEMICONDUCTOR, INC., MATROX
7 ELECTRONIC SYSTEMS, LTD., MATROX
GRAPHICS, INC., MATROX INTERNATIONAL
8 CORP., MATROX TECH, INC., and
AEROFLEX COLORADO SPRINGS, INC.
9

10 UNITED STATES DISTRICT COURT
11 NORTHERN DISTRICT OF CALIFORNIA
12 SAN FRANCISCO DIVISION
13

14 RICOH COMPANY, LTD,
15 Plaintiff,
16 vs.

Case No. C03-04669 MJJ (EMC)

Case No. C03-02289 MJJ (EMC)

**DECLARATION OF DENISE M. DE MORY
PURSUANT TO CIVIL LOCAL RULE 56-
2(b)**

17 AEROFLEX INCORPORATED, AMI
SEMICONDUCTOR, INC., MATROX
18 ELECTRONIC SYSTEMS LTD., MATROX
GRAPHICS INC., MATROX
19 INTERNATIONAL CORP., MATROX TECH,
INC., AND AEROFLEX COLORADO
20 SPRINGS, INC.,

21 Defendants.

22 SYNOPSIS, INC.,

23 Plaintiff,

24 vs.

25 RICOH COMPANY, LTD.,

26 Defendant.

27 **REDACTED PUBLIC COPY**
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DECLARATION OF DENISE M. DE MORY

I, Denise M. De Mory declare as follows:

1. I am a partner at the law firm of Howrey LLP, counsel of record for Synopsys and the Customer Defendants in the above-captioned actions. I am a member in good standing of the State Bar of California and have been admitted to practice before this Court. I have personal knowledge of the facts set forth in this Declaration and, if called as a witness, could and would testify competently to such facts under oath.

2. I make this declaration pursuant to Civil Local Rule 56-2, which states that "If the nonmoving party refuses to join in the statement, the moving party will nevertheless be permitted to file the motion, accompanied by a separate declaration of counsel explaining why a joint statement was not filed. Whether or not sanctions should be imposed for failure to file a joint statement of undisputed facts is a matter within the discretion of the assigned Judge."

3. Synopsys and the Customer Defendants have filed nine summary judgment motions with the Court, and Ricoh has filed one summary judgment motion with the Court. Briefing was completed on Friday, September 8, 2006, and the hearing was originally set for Tuesday, September 26, 2006, but has since been taken off-calendar. The parties were able to reach agreement regarding a Separate Statement of Facts in support of Ricoh's Motion for Summary Judgment, and a complete Separate Statement of Facts was filed with regard to that Motion. See *Synopsys* Docket No. 482. With regard to Synopsys and the Customer Defendants' Motions, however, the parties were unable to reach complete agreement on a Separate Statement. A partial Separate Statement was filed. *Id.* This Declaration addresses facts to which Ricoh refused stipulate.

4. At 1:08 p.m. Pacific Time on Monday, September 11, 2006, I sent counsel for Ricoh a proposed joint stipulation of undisputed facts relating to all ten summary judgment motions pending before the Court. A true and correct copy of this e-mail (with attachment) is attached hereto as Exhibit 1.

5. At 11:22 a.m. Pacific Time on Tuesday, September 12, counsel for Ricoh sent me comments on the proposed undisputed facts sent the previous day. A true and correct copy of this e-mail (with attachment) is attached hereto as Exhibit 2.

6. Over the next 12 hours, the parties engaged in extensive meet and confer efforts to reach agreement on a joint statement of undisputed facts. Exhibit 3 is an e-mail from me to Ricoh's counsel providing all changes Synopsys and the Customer Defendants were willing to agree to. Exhibit 4 is Ricoh's response to this e-mail.

7. The Joint Statement, as it existed as of approximately 11:00 p.m. on September 12, was then filed. After the filing was complete, I sent counsel for Ricoh the following e-mail:

Ken:

I dispute your characterizations. You have known about all of the facts included in each version of our joint statement since August 18. You did not [dispute] the facts in your [oppositions] to our motions, and thus, they were appropriately included in joint statement. Moreover, to the extent that we included what you improperly characterize as "new facts" in the draft distributed this evening, they were either something that we specifically discussed, or they were to attempt to address your concerns, and thus, not new facts at all. You inserted specific comments regarding those facts that you disputed because it was allegedly too late for you to verify the facts. Please advise before 6 p.m. PST tomorrow whether or not you the facts to which you included your "11:00 p.m. objection" are agreeable to Ricoh. Also please explain why you could not agree to facts 1 and 2 as written which were verbatim from [the] Soderman transcript.

Exhibit 5.

Ricoh's counsel has never responded to this e-mail.

8. The facts Ricoh rejected fall primarily into two categories — those that were verbatim quotes from or close paraphrases of Ricoh's pleadings, expert reports and/or expert depositions, and those that were raised in Synopsys and the Customer Defendants' opening papers, and to which Ricoh came forward with no controverting evidence with its opposition papers.

9. For the proposed facts Ricoh rejected which were verbatim quotes or paraphrases from Ricoh's own pleadings and experts, I provided Ricoh's counsel with the original citations. Ricoh still did not agree to the proposed facts.

10. With regard to Summary Judgment Motion No. 1, the proposed facts Ricoh rejected as well as the source material cited to Ricoh are set forth in the table below. The proposed facts are taken from Exhibit 1, unless otherwise noted.

<u>Proposed Fact</u>	<u>Original Ricoh Source Material Cited To Ricoh In Support of Proposed Fact</u>
1. The Customer Defendant designs at issue	"Q Do the customer designs include a

1 include a specification of inputs.

specification of the inputs?

A Yes.” Soderman Depo. At 77:21-23.

2
3 2. The Customer Defendant designs at issue

“Q Do the customer designs include a

4 include a specification of outputs.

specification of the outputs?

A Yes.” Soderman Depo. At 77:24-78:1.

5
6 3. The Customer Defendant designs at issue

Q Do the customer Defendant designs include a

7 include a specification of registers (which may be

specification of registers if we define specification

8 flip-flops or latches).

of registers to include inferring a register from

statements such as pos clock edge,

always@(posclkedge)?

A Here again, if you substitute the word

“FlipFlop”, I would agree.

Q Let’s do it that way. Do the customer

Defendant designs include a specification of

FlipFlops if we define specification of FlipFlops

to include inferring if FlipFlop from statements

such as always@(posclkedge)?

A Yes.” Soderman Depo. At 80:1-13.

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19 4. The Customer Defendant designs at issue,

“Q Let me try it again. Do the customer

20 for each clock cycle, include a description of how

Defendant designs include for each clock cycle a

21 the values of the outputs and registers should be

description of how the values of the outputs and

22 set according to the value of the inputs, the

FlipFlops should be set according to the values of

23 previous values of the registers and the logic

the inputs, the previous values of the FlipFlops

24 functionality between register locations.

and the logic functionality as specified by the

HDL operators?

A Yes.” Soderman Depo. At 108:2-9.

11. With regard to Summary Judgment Motion No. 2, the proposed facts Ricoh rejected as well as the source material cited to Ricoh are set forth in the table below.

<u>Proposed Fact</u>	<u>Original Ricoh Source Material Cited To Ricoh In Support of Proposed Fact</u>
	<p>“Q So the RBO rules at issue, for purposes of your infringement analysis, are applied to the customer Defendant designs after the designs have been mapped to target technology hardware cells; is that correct?</p> <p>A The rules are applied there. Could have been applied other places at other times, but they're definitely applied there.</p> <p>Q But for purposes of your infringement analysis --</p> <p>A That's where they're applied. That's where we say it infringes.</p> <p>Q When those rules are applied, is it correct that the functionality of the circuit is not changed?</p> <p>A Well, it's still doing an add operation. That part isn't changed. You may have changed the size of a gate, or maybe combined a couple of gates together. That's what the rules do.</p> <p>Q And it doesn't -- the rules don't change the architecture of the cell either, do they? If it's a ripple carry adder, it stays a ripple carry adder; is that correct?</p> <p>A Correct, it doesn't change the architecture that way.</p>

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Q And so if a ripple carry adder has been selected, application of the RBO rules to the design after that selection does not change the architecture; is that correct?

A It does change a ripple carry into a carry save or a BK. That's extremely clear. If that's the question you are asking, that's the answer.

Soderman Depo. at 169:13-170:22.

“Q. You put in a plus. You had more than one choice, and Design Compiler chose a synthetic operator?

A One of the synthetic operators, yes.

Q Okay. So you put in a plus and Design Compiler had a choice of multiple synthetic operators and at some point in time, it selected one synthetic operator; correct?

A Yes.

Q That happened without applying RBO SOT rules; correct?

A Yes.

Q From that one synthetic operator, Design Compiler had a choice of multiple synthetic modules; is that correct?

A Yes.

Q And Design Compiler at some point in time chose one synthetic module to correspond to the synthetic operator which corresponds to the plus;

correct?

A Yes.

Q And Design Compiler does that without applying RBO SOT rules; is that correct?

A Yes.

Q At some point in time, the selected synthetic module is mapped to a DesignWare implementation such as what we've been talking about, DW01_ADD ripple underscore something, and that corresponds to the selected synthetic module, which corresponds to the selected synthetic operator which corresponds to the plus, and all of that happened without the application of RBO rules; is that correct?

A Yes, because what was originally defined was architecturally independent operator, and it went through the various -- we'll call it decision trees, and when it found the most optimum, we'll call it architecture, it then ran in the RBO -- then it runs the RBO rules to further refine it." Soderman Depo. at 145:9-146:22.

12. With regard to Summary Judgment Motion No. 3, the proposed facts rejected by Ricoh as well as the source material cited to Ricoh are set forth in the table below. Ricoh's attorney explained his refusal to agree with these proposed facts by stating "[g]enerally, I think you are attempting to substitute attorney characterizations of evidence for the actual evidence, which as you have pointed out in your briefs is improper. We are not going to let you pick an choose from the statements in all our briefs and let you agree with some and dispute or not include others." The e-mail

in which Ricoh's attorney set forth this explanation is attached hereto as Exhibit 6. It is Synopsys' and the Customer Defendants' position that it is appropriate to identify areas of agreement, especially agreement that is apparent from Ricoh's briefs, as undisputed facts. Furthermore, as explained in the Reply brief, based solely on the facts to which Ricoh has agreed in its briefs, summary judgment is appropriate without regard to the other facts.

<u>Proposed Fact</u>	<u>Original Ricoh Source Material Cited To Ricoh In Support of Proposed Fact</u>
11. Dr. Kobayashi was Dr. Foo's advisor for his master's thesis, attached as Exhibit 66 to the Brothers Declaration.	"Mr. Foo authored a master's thesis entitled: 'Managing VLSI CAD with a relational Database system.' (Brothers Dec. Ex. 65 Foo Tr. at 7). . . . Dr. Kobayashi approved of the topic and acted as Mr. Foo's advisor for his master's thesis. (<i>Id.</i>)."
12. This thesis describes the use of a relational database system to manage very large scale integration designs.	"Mr. Foo's master thesis describes the use of a relational database system to manage very large scale integration designs. (Brothers Dec. Ex. 66 Foo Master Thesis)." Ricoh Opp. to SJM #3 at 17:3-4.
14. One of these papers, titled "A Framework for Managing VLSI CAD Data," discusses a frame based approach for managing VLSI CAD data, attached as Exhibit 67 to the Brothers Declaration.	"One of the papers is entitled 'A Framework for Managing VLSI CAD Data' and was published in April, 1986. (Brothers Dec. Ex. 67) This paper discusses a frame based approach for managing VLSI CAD data." Ricoh Opp. to SJM #3 at 4:4-6.
15. The other paper, titled "A Knowledge Based System for VLSI module selection," discusses a program called NEPTUNE, which is a	"A second co-authored paper is entitled 'A Knowledge based system for VLSI module selection' and was published October, 1986.

1 system that selects VLSI modules, and based on
 2 domain specific knowledge and heuristic rules,
 3 helps find optimized solutions, attached as Exhibit
 4 68 to the Brothers Declaration.

(Brothers Dec. Ex. 68) This paper discusses
 ‘Neptune,’ a system that selects VLSI modules,
 and based on domain specific knowledge and
 heuristic rules. [sic] helps find optimized
 solutions.” Ricoh Opp. to SJM #3 at 4:19-22.

6 16. Neptune is listed as one of the names of
 7 the program modules for cell selection that was
 8 part of the contract between ICC and Ricoh for
 9 the joint development of the Knowledge Based
 10 Silicon Compiler (which is attached to the
 11 contract between ICC and Ricoh with an effective
 12 date of January 15, 1987), and Dr. Foo is listed as
 13 one of the two program designers for Neptune.

“Neptune is listed as one of the names of the
 program module for cell selection that was part of
 the contract between ICC and Ricoh for the joint
 development of the Knowledge based Silicon
 Compiler. Program specification indicated that
 there were two program designers: Mr. Foo and
 Stuart Anderson.” Ricoh Opp. to SJM #3 at 18:1-
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 15 13. With regard to Summary Judgment Motion No. 3, the proposed facts rejected by Ricoh
 16 which have no controverting evidence in the record, with citations to the evidence which supports
 17 them, are set forth in the table below. The proposed facts are contained in Exhibit 1, unless they
 18 specify otherwise.

<u>Proposed Fact</u>	<u>Uncontroverted Supporting Evidence</u>
20 18 (Ex. 3). As described in “A Knowledge Based 21 System for VLSI module selection,” the VLSI 22 modules that are selected by the NEPTUNE 23 system are selected using rules stored in an expert 24 system knowledge base. 25 26	“This paper introduces a frame-based system for selecting VLSI modules, called NEPTUNE. Based on domain specific knowledge and heuristic rules, NEPTUNE assists IC designers to select an optimized solution, and explore different implementation alternatives.” Brothers Decl., Ex. 68, at 184.

14. With regard to Summary Judgment Motion No. 4, the proposed facts rejected by Ricoh as well as the source material cited to Ricoh are set forth in the table below.

<u>Proposed Fact</u>	<u>Original Ricoh Source Material Cited To Ricoh In Support of Proposed Fact</u>
24. The VDAA system accepted as input an algorithmic description of the behavior of the chip, written in a language known as ISPS, and the ISPS description described the desired functionality of the chip in terms of actions and conditions.	"The VDAA system inputs an algorithmic description in a programming language known as 'ISP.' [sic] The VDAA system transforms the algorithmic description into a network of functional modules (e.g., registers, adders, multiplexers) using expert knowledge." Soderman Rebuttal Report at 19:2-7.

15. With regard to Summary Judgment Motion No. 4, the proposed facts rejected by Ricoh which have no controverting evidence in the record, with citations to the evidence which supports them, are set forth in the table below. The proposed facts are contained in Exhibit 1, unless they specify otherwise, and are separated by Motion. After receiving comments from Ricoh to certain facts proposed in Exhibit 1, Synopsys and the Customer Defendants separated certain original facts into constituent parts — for instance, Fact No. 20, which was not challenged by Ricoh in its oppositions, was first challenged by Ricoh in its response to the proposed fact. *See* Exhibit 2. Synopsys and the Customer Defendants proposed Facts Nos. 20d-20f, also uncontroverted, to attempt to determine whether Ricoh's objection could be addressed. The same is true with Fact No. 21.

<u>Proposed Fact</u>	<u>Uncontroverted Supporting Evidence</u>
20. The article T.J. Kowalski, D.J. Geiger, W.H. Wolf, and W. Fichner, "The VLSI Design Automation Assistant: From Algorithms to Silicon," <i>IEEE Design and Test of Computers</i>	

1 Magazine, Vol. 2, No. 4, pp. 33-43
 2 ("Kowalski85") was published in August 1985.
 3
 4 20d (Ex. 3). *IEEE Design and Test of Computers*
 5 Magazine is a periodical which is publicly
 6 available from at least one library.
 7
 8 20e (Ex. 3). The August 1985 issue of *IEEE*
 9 *Design and Test of Computers Magazine* is
 10 publicly available from at least one library.
 11
 12 20f (Ex. 3). The August 1985 issue of *IEEE*
 13 *Design and Test of Computers Magazine* was
 14 publicly available from at least one library prior to
 15 January 13, 1987.
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 18

Oka Depo. at 364:20-365:20.

19 21. The thesis "The VLSI design automation
 20 assistant: a knowledge based expert system,"
 21 written by Thaddeus Julius Kowalski at Carnegie
 22 Mellon University, was available to the public via
 23 the Carnegie Mellon library in 1984 ("Kowalski
 24 Thesis" or "Kowalski84"), and was republished
 25 by Kulwer in 1985 in book form.
 26

De Mory Decl., Ex. 101; Brothers Decl., Ex. 82 at
 cover page and Acknowledgements.

27 21c (Ex. 3). The Kowalski Thesis contains an
 28 indication that it is designated as SRC Report

1 CMU-CAD-84-29.

2 21d (Ex. 3). The work on the Kowalski Thesis
3 was financed in part by the National Science
4 Foundation.

5 21e (Ex. 3). The Kowalski Thesis contains a
6 limited distribution notice stating that the thesis
7 has been, or will be, submitted for publication, has
8 been issued as a Research Report for
9 dissemination of its contents, and because of
10 potential transfer of copyright to the publisher,
11 distribution outside CMU is limited to peers and
12 specific requests until publication.

13 22a (Ex. 3). Kowalski85 and the Kowalski
14 Thesis describe versions of the same program,
15 which is entitled VLSI Design Automation
16 Assistant.

Kowalski Depo. at 9:14-17 & 13:5-12;
Kowalski85 at Note 8 (citation to Kowalski
Thesis).

17 22b (Ex. 3). The parties refer to the VLSI
18 Design Automation Assistant as "VDAA."

See generally, Ricoh Opp. to SJM #4.

19 23b (Ex. 3). Dr. Kowalski provided deposition
20 testimony on the VDAA program, Kowalski85,
21 and the Kowalski Thesis, among other topics, in
22 response to questions posed by Ricoh's attorneys.

De Mory Decl., Ex. 37 (Kowalski Depo.)

23 24a (Ex. 3). The VDAA system inputs an
24 algorithmic description in a programming
25 language known as "ISP." [sic] The VDAA
26 system transforms the algorithmic description into
27 a network of functional modules (e.g., registers,
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Soderman Rebuttal Report at 19:2-7.

adders, multiplexers) using expert knowledge.

25. The ISPS description was then translated into a data-flow graph representation known as VT by the VDAA system. In the process of compiling the design into a VT, the compiler translated each of the actions and conditions into a predefined operator, which forms the node of the graph.

Kowalski Thesis at 49 (“The ISPS description is compiled into a VT data-flow representation. . . . The VT is a directed acyclic graph. . . . The nodes in this graph are called *operators* and correspond to operations that take certain values as input and produce new values as output. . . . The arcs connecting the nodes are called *outnodes* and represent the generation or use of data values. They are translations of the ISPS carriers and the temporary carriers needed to pass results from one operator to another. The graph is partitioned into subgraphs called *VT-bodies*, corresponding to a set of operations that can be evoked, entered, or left as a unit. These subgraphs are translations of ISPS procedures, labeled blocks and loops.”); Kowalski⁸⁵ at 36 (“The DAA actually works from a dataflow representation extracted from the ISPS description”).

26. The nodes in the VT representation were used to select hardware cells from the “technology-sensitive database” using expert rules stored in the VDAA system.

Kowalski Thesis at 69 (“This section overviews allocating memories, registers, constants, controller, and database by recognizing certain features in the VT representation. These rules, like all the other rules in this chapter, use the service function rules to do their bookkeeping.”); *id.* at 71 (“Once the designer has allocated the

global non-changing hardware, the next task is to partition the whole design into smaller blocks and select a partition for allocation. . . . The DAA allocates the clock phases, operators, registers, data paths and control logic in two subtasks, VT allocation and SCS allocation, which are shown in Figure 27. This allows the DAA to gather all the information about register usage in the VT allocation and then allocate registers and modules in the SCS allocation.); Kowalski⁸⁵ at 34 (“A cornerstone of our hardware synthesis approach is the use of knowledge-based expert systems. Such systems make decisions based on knowledge, expressed as rules, obtained from expert designers.”); *id.* at 36 (“The DAA is a knowledge-based expert system that uses a database of over 500 rules to synthesize an architectural implementation from an algorithmic description with constraints. The description is written in ISPS.”)

27. The rules in the VDAA system were in an IF-THEN antecedent format.

Kowalski Thesis at 11 (“The rule memory is a collection of conditional statements that operate on elements stored in the working memory. The statements resemble the conditional statements of conventional programming languages: *IF*: *<antecedent 1> . . . <antecedent n> THEN: <consequence 1> . . . <consequence m>.*”)

1	28. After the hardware cells were bound using	Kowalski Depo. at 106:7-13.
2	the module binder, a netlist was created by the	
3	control allocator.	
4	29 (Ex. 3). At deposition, Dr. Kowalski testified	Kowalski Depo. at 83:5-24.
5	(without corroboration) that the “technology	
6	sensitive” database in Kowalski85 contained	
7	technology-independent “cell descriptions,”	
8	where he defined that term stating: “It varied. It	
9	could be as low as a single an gate or as high and	
10	complicated as an ALU. So it is a broad list of	
11	possible things.”	
12	30b (Ex. 3). Dr. Kowalski refined the VDAA	Kowalski Depo. 14:4-6; 77:16-20; 78:15-79:19;
13	program while at AT&T.	94:20-99:17; 104:8-21; 118:7-119:12; 130:6-
14		131:3.
15	30c (Ex. 3). One of these refinements to VDAA	<i>Id.</i> ; <i>see also</i> Kowalski Depo. Ex. 463.
16	was to eliminate the need for a separate module	
17	binder process.	
18	30d (Ex. 3). Under this refinement, the VDAA	<i>Id.</i> ; <i>see also</i> Kowalski Depo. Ex. 463.
19	program itself selected and bound hardware cell,	
20	and created a netlist, without the need for a	
21	separate module binder.	

16. With regard to Summary Judgment Motion No. 5, the proposed facts rejected by Ricoh which have no controverting evidence in the record with citations to the evidence which supports them are set forth in the table below. The proposed facts are contained in Exhibit 1, unless they specify otherwise.

<u>Proposed Fact</u>	<u>Uncontroverted Supporting Evidence</u>
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1	38. The 1989 KBSC Article discusses eight	Brothers Dec. Ex. 84 (at 388-389)
2	prior art systems, including VDAA as disclosed in	
3	Kowalski85, and distinguishes those systems from	
4	KBSC.	
5	39. The 1989 KBSC Article refers to VDAA	Brothers Dec. Ex. 84 (at 389).
6	as DAA (or just Design Automation Assistant).	
7	40. Reference [5] to Kowalski85 in the 1989	Brothers Dec. Ex. 84 (at 390); De Mory Supp.
8	KBSC Article is incorrectly cited as being	Decl. Ex. 92 (1986 TOC).
9	published in 1986.	
10	41. No article exists for Reference [5] as cited	<i>Id.</i>
11	in the 1989 KBSC Article (i.e., as a 1986	
12	Kowalski article).	

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14 17. With regard to Summary Judgment Motion No. 6, the proposed facts rejected by Ricoh
15 which have no controverting evidence in the record with citations to the evidence which supports them
16 are set forth in the table below. The proposed facts are contained in Exhibit 1, unless they specify
17 otherwise. After receiving comments from Ricoh to certain facts proposed in Exhibit 1, Synopsys and
18 the Customer Defendants separated certain original facts into constituent parts — for instance, Fact
19 No. 44, which was not challenged by Ricoh in its oppositions, was first challenged by Ricoh in its
20 response to the proposed fact. *See* Exhibit 2.

21		
22	<u>Proposed Fact</u>	<u>Uncontroverted Supporting Evidence</u>
23	44. Ricoh asserts that over 350 of the Customer	See below.
24	Defendants' designs infringe the '432 claims.	
25	44a (Ex. 3). 231 of the over 350 ASICs at issue	Casavant Decl., ¶ 9 and Ex. 2; De Mory Decl., Ex.
26	in this case are AMI Semiconductor, Inc. ASICs	50 at 5-10.
27	for which the only logic synthesis performed by	
28	AMI Semiconductor, Inc. using the Design	

1 Compiler system was the creation of a BIST
 2 (Built In Self Test) memory controller. These 231
 3 ASICs are listed in the June 1, 2006 Corrected
 4 Third Supplemental Product Declaration of
 5 Robert B. Smith of AMI.

6 44b (Ex. 3). A BIST is not an ASIC, but merely
 7 a portion of an ASIC whose only purpose is to
 8 allow testing of a memory device on the chip prior
 9 to shipment to the customer.

Casavant Decl., ¶ 9; De Mory Decl., Ex. 51
 (Warren) at 63:13-65:25.

10 44c (Ex. 3). Of the over 350 ASICs at issue, at
 11 least the following Aeroflex, Inc. and Aeroflex
 12 Colorado Springs, Inc. ASICs are mixed-signal
 13 ASICs: JW01, YA04/YA13, YB01, DA01, DA02,
 14 JW02.

Casavant Decl., ¶ 8 and Ex. 2.

15 44d (Ex. 3). Of the over 350 ASICs at issue, at
 16 least the following Matrox Electronic Systems
 17 Ltd., Matrox Graphics, Inc., Matrox International
 18 Corp., and Matrox Tech, Inc. ASICs are mixed-
 19 signal ASICs: Cyclone, Eclipse, Eclipse PCI,
 20 Calao, Toucan, Condor, Condor Plus, Parhelia,
 21 Sundog, Parhelia8x, Sunex, Maven, Rainbow
 22 Runner, Twister.

Casavant Decl., ¶ 8 and Ex. 2.

23 44e (Ex.3). Of the over 350 ASICs at issue, at
 24 least the following AMI Semiconductor, Inc.
 25 ASICs are mixed-signal ASICs: 11241-801, 802,
 26 803; 0QJBW-001, 002, 900, 901, 902, 903, 904,
 27 905, 906; 11636-501; 14167-001; 14948-501,
 28

Casavant Decl., ¶ 8 and Ex. 2.

502, 503; 15088-501; 15124-501, 502; 19007-001; 19075-001, 002, 003; 19320-001; 19371-001; 19402-001; 0JGBE-001, 002, 900, 901, 902; 19293-001, 002, 004; 19070-001, 002; 19134-001; 0MNTA-900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914; 13855-501; 15078-001, 002; 19219-001, 002, 003; 19299-001; 19409-001, 002, 003; 19428-001; 19429-001, 002, 003; 19529-001; 19558-002; 19608-001; 19645-001; 19664-002; 19693-001, 002; 0AFCB-002; D1AFCC; 0APSE-002; 0C621-003; 0C622-003; D1CORC; D1CORD; 0HISB-001; 0IEBA-002; D1SEBA.

44f. For all ASIC designs, the Design Compiler system cannot be used to design certain portions of the ASIC such as instantiated pad cells, asynchronous logic, and hand instantiated logic.

46. The Design Compiler system can only be used to design digital portions of ASICs.

47. Mixed-signal products contain both analog and digital portions.

48. The ASIC products Ricoh accuses of infringement in this case that are mixed-signal products are listed in Exhibit 2 to the August 18, 2006 Declaration of Albert E. Casavant in Support of Synopsys and the Customer Defendants' Motions for Summary Judgment.

Casavant Decl., ¶ 10; Brothers Decl., Ex. 27 (Casavant report) at 7.

See Casavant Decl., ¶ 8; Brothers Decl., Ex. 27 (Casavant report) at 7.

See Casavant Decl., ¶ 8.

Casavant Decl. ¶ 8; Exhibit 2 to the August 18, 2006 Declaration of Albert E. Casavant in Support of Synopsys and the Defendants' Motions for Summary Judgment.

1 2 3 4 5 6 7 8 9 10	49 (Ex. 3). The Corrected Third Supplemental Product Declaration of Robert B. Smith of AMI dated June 1, 2006 declares that for 231 of the AMI designs that Ricoh accuses of infringement, AMI used the Design Compiler system to design a portion of the ASIC known as "BIST" or "Built-In Self Test." These AMI designs are listed in Exhibit 2 to the August 18, 2006 Declaration of Albert E. Casavant in Support of Synopsys and the Defendants' Motions for Summary Judgment.	Casavant Decl. ¶ 9; Exhibit 2 to the August 18, 2006 Declaration of Albert E. Casavant in Support of Synopsys and the Defendants' Motions for Summary Judgment; De Mory Decl., ¶ 50(Corrected Third Supplemental Product Declaration of Robert B. Smith of AMI dated June 1, 2006).
11 12 13 14		Casavant Decl. ¶ 10; Brothers Decl. Ex. 27 at 7.
15 16 17 18 19 20		Brothers Decl., Ex. 32 (Soderman) at 156:2-157:3; 158:24-160:6; 165:17-24; 255:15-19; Soderman Decl., ¶44.
21 22 23 24		Casavant Decl., ¶ 17; Brothers Decl., Ex. 27 (Casavant report) at 11-12.
25 26 27 28		Casavant Decl., ¶20; Brothers Decl., Ex. 27 (Casavant report) at 14.

1		
2		Casavant Decl., ¶ 18; Brothers Decl., Ex. 27
3		(Casavant report) at 13.
4		
5		
6		
7	56. For each of the 350 designs at issue,	Casavant Decl., ¶ 10, 57-60.
8	additional circuitry must be added to the Design	
9	Compiler system netlist prior to the time that	
10	mask data can be created.	

11

12 18. With regard to Summary Judgment Motion No. 7, the proposed facts rejected by Ricoh

13 which have no controverting evidence in the record, with citations to the evidence which supports them

14 (or, for facts which state that there is a lack of evidence, the reasons that lack of evidence is apparent),

15 are set forth in the table below. The proposed facts are contained in Exhibit 1, unless they specify

16 otherwise. After receiving comments from Ricoh to certain facts proposed in Exhibit 1, Synopsys and

17 the Customer Defendants separated certain original facts into constituent parts — for instance, Fact

18 Nos. 57-60 and 62-63, which were not challenged by Ricoh in its oppositions, were first challenged by

19 Ricoh in its response to the proposed facts. *See* Exhibit 2.

21	<u>Proposed Fact</u>	<u>Uncontroverted Supporting Evidence</u>
22	57. There is no evidence that the use of the	This point was raised in SJM #7 at 7:27-8:1 &
23	Design Compiler system drives the demand for	n.6. Ricoh's sole rebuttal was a citation to Mr.
24	Matrox graphics boards.	Lipscomb's deposition, where he claims that Dr.
25	57 (Ex. 3). There is no evidence that customers	Soderman's testimony provides "indirect
26	purchase the accused Matrox graphics boards	evidence" of this proposition. However, Dr.
27	because Design Compiler is used as part of the	Soderman stated only that there was cost
28		reduction, not that demand was driven by the use
		of Design Compiler. <i>See, e.g.,</i> Reply #7 at 3:10-4:2.

1 design process.

2 58. There is no evidence that the use of the
3 Design Compiler system drives the demand for
4 the Customer Defendants' ASICs.

5 58 (Ex. 3). There is no evidence that customers
6 purchase the accused Defendant ASICs because
7 Design Compiler is used as part of the design
8 process.

This point was raised in SJM #7 at 7:27-8:1 & n.6. Ricoh's sole rebuttal was a citation to Mr. Lipscomb's deposition, where he claims that Dr. Soderman's testimony provides "indirect evidence" of this proposition. However, Dr. Soderman stated only that there was cost reduction, not that demand was driven by the use of Design Compiler. *See, e.g.*, Reply #7 at 3:10-4:2.

9 60. The VIA/1 was not synthesized during the
10 damages period.

De Mory Decl., Ex. 65 (Boisvert Depo.) at 201-15.

11 61. There is no evidence that the VIA/1 was
12 synthesized during the damages period.

Ricoh relies upon the fact that VIA/1 was included in the product declaration. However, deposition testimony, under questioning from Ricoh, establishes that this inclusion was in error. *Id.*

14 62. There is no evidence that any infringing
15 activity for the Matrox Calao; Condor;
16 CondorPlus; cyclone; Eclipse; Maven; Sunex;
17 Toucan; SIB; and Oasis products took place in the
18 United States.

De Mory Decl., Exs. 60-61. Ricoh relies upon the fact that these products were included in the product declaration and provided sales figure. However, none of this evidence suggests that there was infringing activity for these chips.

19 62a (Ex. 3). There is no evidence that any
20 infringing activity for the Matrox Maven product
21 took place in the United States.

De Mory Decl., Exs. 60-61. Ricoh relies upon the fact that these products were included in the product declaration and provided sales figure. However, none of this evidence suggests that there was infringing activity for these chips.

22 63. Foreign sales of the Matrox Calao;
23 Condor; CondorPlus; Cyclone; Eclipse; Maven;
24 Sunex; Toucan; SIB; and Oasis products should
25 be excluded from the royalty base.

De Mory Decl., Ex. 62. Ricoh relies upon the fact that these products were included in the product declaration and provided sales figure. However, none of this evidence suggests that there was infringing activity for these chips.

26 63 (Ex. 3). If there was no infringing activity in
27 the United States for the Matrox Calao; Condor;
28 CondorPlus; Cyclone; Eclipse; Maven; Sunex;

Toucan; SIB; and Oasis products, then foreign sales of the products should be excluded from the royalty base.

63a (Ex. 3). If there was no infringing activity in the United States for the Matrox Maven product, then foreign sales of the Maven product should be excluded from the royalty base.

De Mory Decl., Ex. 62. Ricoh relies upon the fact that these products were included in the product declaration and provided sales figure. However, none of this evidence suggests that there was infringing activity for these chips.

19. With regard to Summary Judgment Motion No. 8, the facts rejected by Ricoh which have no controverting evidence in the record, with citations to the evidence which supports them (or, for facts which state that there is a lack of evidence, the reasons that lack of evidence is apparent), are set forth in the table below. The proposed facts are contained in Exhibit 1, unless they specify otherwise, and are separated by Motion.

<u>Proposed Fact</u>	<u>Uncontroverted Supporting Evidence</u>
67a (Ex. 3). Ricoh had no more information about the alleged architecture independent nature of the Defendants' Verilog and VHDL ASIC inputs when it initiated this suit than it had before January 21, 1997.	This issue was raised in Reply #8 at 10:25-11:7. Ricoh has failed to provide any substantive basis for failing to agree to this fact.
69. Between 1990 and 1996, Ricoh entered into over 40 contracts with Synopsys for the licensing or support of the products-in-suit.	De Mory Decl., Ex. 68
71a (Ex. 3). As a licensee, Ricoh received product manuals describing the use and functionality of the tools comprising the Design Compiler system.	De Mory Decl., Ex. 70
71b (Ex. 3). As a licensee, KBSC received	<i>Id.</i>

1 product manuals describing the use and
2 functionality of the tools comprising the Design
3 Compiler system.

4
5 I declare under penalty of perjury under the laws of the United States of America that the
6 foregoing is true and correct.

7 Executed on September 25, 2006, at San Francisco, California.

8
9 /s/

10 Denise M. De Mory
11
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Exhibit 1

Andelman, Ethan

From: DeMory, Denise
Sent: Monday, September 11, 2006 1:08 PM
To: Brothers, Kenneth
Cc: Andelman, Ethan; Fink, Jacky; .-Ricoch Attomeys
Subject: joint statement draft 1.doc

Attachments: joint statement draft 1.doc

Ken:

Attached please find a draft joint statement of undisputed facts. To expedite discussions, we have also included drafted facts for your motion. Please let me know when tomorrow you are available to meet and confer regarding the attached. Noon PST or later would be best for me, but I can be flexible.

Regards,

Denise



joint statement
draft 1.doc (1...

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Denise M. De Mory (SBN 168076)
2 Jaclyn C. Fink (SBN 217913)
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5 Attorneys for Plaintiff SYNOPSISYS, INC.
6 and for Defendants AEROFLEX INCORPORATED,
AMI SEMICONDUCTOR, INC., MATROX
7 ELECTRONIC SYSTEMS, LTD., MATROX
GRAPHICS, INC., MATROX INTERNATIONAL
8 CORP., MATROX TECH, INC., and
AEROFLEX COLORADO SPRINGS, INC.
9

10 UNITED STATES DISTRICT COURT
11 NORTHERN DISTRICT OF CALIFORNIA
12 SAN FRANCISCO DIVISION

13 RICOH COMPANY, LTD.,

14 Plaintiff,

15 vs.

16 AEROFLEX INCORPORATED, AMI
SEMICONDUCTOR, INC., MATROX
17 ELECTRONIC SYSTEMS LTD., MATROX
GRAPHICS INC., MATROX
18 INTERNATIONAL CORP., MATROX TECH,
INC., AND AEROFLEX COLORADO
19 SPRINGS, INC.

20 Defendants.

21 SYNOPSISYS, INC.,

22 Plaintiff,

23 vs.

24 RICOH COMPANY, LTD.,

25 Defendant.

Case No. C03-04669 MJJ (EMC)

Case No. C03-02289 MJJ (EMC)

**JOINT STATEMENT OF UNDISPUTED
FACTS RE PENDING MOTIONS FOR
SUMMARY JUDGMENT**

Date: September 26, 2006
Time: 9:30 a.m.
Courtroom: 11, 19th Floor
Judge: Martin J. Jenkins

DRAFT**Statement of Undisputed Facts for Summary Judgment No. 1**

1. The Customer Defendant designs at issue include a specification of inputs.
2. The Customer Defendant designs at issue include a specification of outputs.
3. The Customer Defendant designs at issue include a specification of registers (which may be flip-flops or latches).
4. The Customer Defendant designs at issue, for each clock cycle, include a description of how the values of the outputs and registers should be set according to the value of the inputs, the previous values of the registers and the logic functionality between register locations.

Statement of Undisputed Facts for Summary Judgment No. 2**Statement of Undisputed Facts for Summary Judgment No. 3**

11. Dr. Kobayashi was Dr. Foo's advisor for his master's thesis, attached as Exhibit 66 to the Brothers Declaration.
12. This thesis describes the use of a relational database system to manage very large scale integration designs.

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13. Dr. Kobayashi and Dr. Foo co-authored two papers published in 1986 which describe systems that use expert knowledge in the selection of functional modules.

14. One of these papers, titled "A Framework for Managing VLSI CAD Data," discusses a frame based approach for managing VLSI CAD data, attached as Exhibit 67 to the Brothers Declaration.

15. The other paper, titled "A Knowledge Based System for VLSI module selection," discusses a program called NEPTUNE, which is a system that selects VLSI modules, and based on domain specific knowledge and heuristic rules, helps find optimized solutions, attached as Exhibit 68 to the Brothers Declaration.

16. Neptune is listed as one of the names of the program modules for cell selection that was part of the contract between ICC and Ricoh for the joint development of the Knowledge Based Silicon Compiler (which is attached to the contract between ICC and Ricoh with an effective date of January 15, 1987), and Dr. Foo is listed as one of the two program designers for Neptune.

17. Dr. Foo's thesis describes storing hardware cells in a frame-based database, as does the FAME paper.

18. As described in "A Knowledge Based System for VLSI module selection," the VLSI modules that are selected by the NEPTUNE system are hardware cells from the frame-based database described in the FAME paper and Dr. Foo's thesis, and they are selected using rules stored in an expert system knowledge base.

19. Dr. Foo, then a USC graduate student and multi-year collaborator with Dr. Kobayashi, contributed to the conception of significant portions of the invention claimed in the '432 patent — specifically, each element of the claims (or, at least, a significant portion of those elements) that do not deal with architecture independent actions and conditions — through his thesis, co-authored papers, and development of the NEPTUNE system.

Statement of Undisputed Facts for Summary Judgment No. 4

20. The article T.J. Kowalski, D.J. Geiger, W.H. Wolf, and W. Fichtner, "The VLSI Design Automation Assistant: From Algorithms to Silicon," *IEEE Design and Test of Computers Magazine*, Vol. 2, No. 4, pp. 33-43 ("Kowalski85") was published in August 1985.

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21. The thesis “The VLSI design automation assistant: a knowledge-based expert system,” written by Thaddeus Julius Kowalski at Carnegie Mellon University, was available to the public via the Carnegie Mellon library in 1984 (“Kowalski Thesis” or “Kowalski84”), and was republished by Kulwer in 1985 in book form.

22. Kowalski85 and the Kowalski Thesis describe the same program — VLSI Design Automation Assistant (“VDAA”).

23. Dr. Kowalski also provided deposition testimony on the workings of the VDAA system.

24. The VDAA system accepted as input an algorithmic description of the behavior of the chip, written in a language known as ISPS, and the ISPS description described the desired functionality of the chip in terms of actions and conditions.

25. The ISPS description was then translated into a data-flow graph representation known as VT by the VDAA system. In the process of compiling the design into a VT, the compiler translated each of the actions and conditions into a predefined operator, which forms the node of the graph.

26. The nodes in the VT representation were used to select hardware cells from the “technology-sensitive database” using expert rules stored in the VDAA system.

27. The rules in the VDAA system were in an IF-THEN antecedent format.

28. After the hardware cells were bound using the module binder, a netlist was created by the control allocator.

29. At deposition, Dr. Kowalski clarified that the “technology sensitive” database discussed in these papers contained cell descriptions that “could be as low as a single an[d] gate or as high and complicated as an ALU.”

30. In addition to his affiliation with CMU, Dr. Kowalski was a researcher at AT&T Bell Laboratories, and after receiving his doctorate in 1984 for his work on VDAA, Dr. Kowalski further refined the program at AT&T. One of these refinements was to eliminate the need for a separate module binder process — the hardware cells were selected, bound, and a netlist was created all in one step.

DRAFT**Statement of Undisputed Facts for Summary Judgment No. 5**

31. On February 24, 2006, the PTO ordered reexamination of the '432 patent based on Kowalski85 and Kowalsk84 [the Kowalski Thesis].

32. The PTO's order granting reexamination of the '432 patent found that "the Kowalski-85 reference (including the inherent teachings of Kowalski84) would have been considered important by a reasonable Examiner in deciding whether or not at least claim 13 was patentable..."

33. The PTO's order granting reexamination of the '432 patent found that "Kowalski-85 and Kowalski-84 references were not of record in the file of the '432 patent and are not cumulative to the art of record in the original file."

34. The PTO's order granting reexamination of the '432 patent found that Kowalski85 is material.

35. The named '432 patent inventors, Dr. Kobayashi and Mr. Shindo, co-authored with Mr. Suehiro and published "KBSC: A Knowledge-Based Approach to Automate Logic Synthesis" (1989 KBSC Article) in 1989 during prosecution of the '432 patent application.

36. All three co-authors of the 1989 KBSC Article were substantively involved in the prosecution of the '432 patent.

37. Kowalski85 describes a system called the VLSI Design Automation Assistant (VDAA).

38. The 1989 KBSC Article discusses eight prior art systems, including VDAA as disclosed in Kowalski85, and distinguishes those systems from KBSC.

39. The 1989 KBSC Article refers to VDAA as DAA (or just Design Automation Assistant).

40. Reference [5] to Kowalski85 in the 1989 KBSC Article is incorrectly cited as being published in 1986.

41. No article exists for Reference [5] as cited in the 1989 KBSC Article (i.e., as a 1986 Kowalski article).

42. Kowalski85 was not disclosed to the PTO prior to issuance of the '432 patent in January of 1990.

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43. Kowalski⁸⁵ was not disclosed to the PTO by anyone substantively involved in the prosecution of the '432 patent.

Statement of Undisputed Facts for Summary Judgment No. 6

44. Ricoh asserts that over 350 of the Customer Defendants' designs infringe the '432 claims.

45. For each of the over 350 Customer Defendant designs at issue, the output of the Design Compiler system did not comprise the full design for an ASIC.

46. The Design Compiler system can only be used to design digital portions of ASICs.

47. Mixed-signal products contain both analog and digital portions.

48. The ASIC products Ricoh accuses of infringement in this case that are mixed-signal products are listed in Exhibit 2 to the August 18, 2006 Declaration of Albert E. Casavant in Support of Synopsys and the Customer Defendants' Motions for Summary Judgment.

49. For approximately 230 of the AMI designs that Ricoh accuses of infringement, AMI used the Design Compiler system to design only a very small portion of the ASIC known as "BIST" or "Built-In Self Test." These AMI designs are listed in Exhibit 2 to the August 18, 2006 Declaration of Albert E. Casavant in Support of Synopsys and the Customer Defendants' Motions for Summary Judgment.

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1 55. Many processing steps must occur between the creation of a Design Compiler netlist
2 output and generation of mask data.

3 56. For each of the 350 designs at issue, additional circuitry must be added to the Design
4 Compiler system netlist prior to the time that mask data can be created.

5 **Statement of Undisputed Facts for Summary Judgment No. 7**

6 57. There is no evidence that the use of the Design Compiler system drives the demand for
7 Matrox graphics boards.

8 58. There is no evidence that the use of the Design Compiler system drives the demand for
9 the Customer Defendants' ASICs.

10 59. The patented process is not required or necessary to the production of an ASIC.

11 60. The VIA/1 was not synthesized during the damages period.

12 61. There is no evidence that the VIA/1 was synthesized during the damages period.

13 62. There is no evidence that any infringing activity for the Matrox Calao; Condor;
14 CondorPlus; cyclone; Eclipse; Maven; Sunex; Toucan; SIB; and Oasis products took place in the
15 United States.

16 63. Foreign sales of the Matrox Calao; Condor; CondorPlus; Cyclone; Eclipse; Maven;
17 Sunex; Toucan; SIB; and Oasis products should be excluded from the royalty base.

18 **Statement of Undisputed Facts for Summary Judgment No. 8**

19 64. Ricoh initiated this infringement suit against the Customer Defendants on January 21,
20 2003, alleging infringement of the '432 patent based on Customer Defendants' sale of application
21 specific integrated circuits ("ASICs") that were designed with Synopsys' Design Compiler system,
22 which includes Design Compiler, HDL Compiler for Verilog, VHDL Compiler, and the DesignWare
23 libraries ("the Design Compiler system").

24 65. Ricoh's infringement allegations are based on the premise that software licensed from
25 Synopsys and used by the Customer Defendants performs all of the steps of the asserted claims
26 except the describing step.

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66. For the describing step, Ricoh contends the limitation is met because “the ASIC Designer entered a written description of the desired functions of the ASIC Product into HDL Compiler for Verilog.”

67. Ricoh alleges that the Verilog and VHDL ASIC designs that include HDL operators, including, for example +, *, -, /, >, < and “if,” “case,” and “wait” statements, comprise “architecture independent actions and conditions,” which, when input by the Customer Defendants into the Synopsys products in suit, fulfill the describing step and thus infringe the ‘432 patent.

68. On October 22, 1990, Ricoh licensed the Design Compiler and HDL Compiler for Verilog from Synopsys.

69. Between 1990 and 1996, Ricoh entered into over 40 contracts with Synopsys for the licensing or support of the products-in-suit.

70. The co-owner of the asserted patent, KBSC, also took a license from Synopsys in July of 1993, and renewed that license in 1995. Ex. 69 at SP00001-SP00032.

71. As licensees, both Ricoh and KBSC received product manuals describing the use and functionality of the tools comprising the Design Compiler system.

72. In January of 1990, Synopsys’ HDL Compiler won the *Electronic Products* magazine’s product of the year award. Ex. 71.

73. By 1997, Synopsys had an over 80% share of the logic synthesis tool market.

74. In 1990, Electronic Engineering Times reported on Matrox Electronics’ use of Synopsys’ synthesis tools. Ex. 74.

75. In 1991, Electronic News reported on AMI’s development of cell libraries for use with Synopsys’ Design Compiler product. Ex. 75.

76. In 1996, the AMI website disclosed that “AMI Design Kits support EDA tools from vendors such as Synopsys.” Ex.78.

77. In 1996, the Aeroflex website (at the time under the company’s former name, UTMC) contained a November 28, 1995 press release in which UTMC announced the introduction of its VHDL design kits to enhance customers’ VHDL-based ASIC designs and systems. Ex. 79.

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78. The Synopsys website from 1997 contains a list of Synopsys Semiconductor Vendor Program participants, including AMI and UTMC (Aeroflex), who had developed strategic relationships with Synopsys to take full advantage of ASIC technology advancements. Ex. 80.

Statement of Undisputed Facts for Summary Judgment No. 9

79. Ricoh has represented that it will not claim enhanced damages due to willfulness.

Statement of Undisputed Facts for Ricoh's Summary Judgment Motion

80. Aeroflex does not contend that sales the following products: UTCAM-Engine, JW01, KD08A, KD11A, JF01A/B, YA04/YA13, YB01, DA01, DA02, JW02, and KC01A.

82. The Customer Defendants could have used non-infringing alternatives, such as tools by Cadence and Mentor, to synthesize their ASICs.

83. The end customer (ASIC consumer) cares about the functionality of the ASIC, rather than a specific design flow.

84. The use of the '432 methods claimed in claims 13-17 is not embodied in the structure or composition of any article used in creating using any of the accused designs at issue.

85. The use of the '432 methods claimed in claims 13-17 is not used in machinery, tools, or methods whose use necessarily results from manufacturing and delivering ASICs to an end user.

Dated: September 12, 2006

HOWREY LLP

By: /s/

Denise M. De Mory
Attorney for Plaintiff SYNOPSYS, INC.
and Defendants AEROFLEX
INCORPORATED, AMI
SEMICONDUCTOR, INC., MATROX
ELECTRONIC SYSTEMS, LTD.,
MATROX GRAPHICS INC., MATROX
INTERNATIONAL CORP., MATROX
TECH, INC., and AEROFLEX
COLORADO SPRINGS, INC.

HOWREY LLP

-8-

DRAFT

1 Dated: September 12, 2006

DICKSTEIN SHAPIRO LLP

2 By: /s/
3 Kenneth W. Brothers
4 Attorney for Plaintiff RICOH COMPANY,
5 LTD.
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Exhibit 2

Andelman, Ethan

From: Brothers, Kenneth [BrothersK@dicksteinshapiro.com]
Sent: Tuesday, September 12, 2006 11:22 AM
To: DeMory, Denise
Cc: Andelman, Ethan; Fink, Jacky
Subject: Draft comments on proposed statements of facts
Attachments: DSMDB-#2141613-v3-edited_statement_of_facts.DOC

Denise:

Enclosed are our initial comments on your proposed joint statement of facts. We may have further comments, but wanted to get this to you as quickly as possible. I await your call, as well as your comments to our proposed statement.

<<DSMDB-#2141613-v3-edited_statement_of_facts.DOC>>

Ken Brothers

Please note my new contact information:

Dickstein Shapiro LLP
1825 Eye Street NW
Washington DC 20006
direct (202) 420-4128
phone (202) 420-2200
fax (202) 420-2201
brothersk@dicksteinshapiro.com

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To reply to our email administrator directly, send an email to postmaster@dicksteinshapiro.com

Dickstein Shapiro LLP
<http://www.DicksteinShapiro.com>

9/25/2006

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5 Attorneys for Plaintiff SYNOPSISYS, INC.
6 and for Defendants AEROFLEX INCORPORATED,
AMI SEMICONDUCTOR, INC., MATROX
7 ELECTRONIC SYSTEMS, LTD., MATROX
GRAPHICS, INC., MATROX INTERNATIONAL
8 CORP., MATROX TECH, INC., and
AEROFLEX COLORADO SPRINGS, INC.
9

10 UNITED STATES DISTRICT COURT
11 NORTHERN DISTRICT OF CALIFORNIA
12 SAN FRANCISCO DIVISION

13 RICOH COMPANY, LTD.,

14 Plaintiff,

15 vs.

16 AEROFLEX INCORPORATED, AMI
SEMICONDUCTOR, INC., MATROX
17 ELECTRONIC SYSTEMS LTD., MATROX
GRAPHICS INC., MATROX
INTERNATIONAL CORP., MATROX TECH,
18 INC., AND AEROFLEX COLORADO
SPRINGS, INC.
19

20 Defendants.

21 SYNOPSISYS, INC.,

22 Plaintiff,

23 vs.

24 RICOH COMPANY, LTD.,

25 Defendant.
26
27
28

Case No. C03-04669 MJJ (EMC)

Case No. C03-02289 MJJ (EMC)

**JOINT STATEMENT OF UNDISPUTED
FACTS RE PENDING MOTIONS FOR
SUMMARY JUDGMENT**

Date: September 26, 2006
Time: 9:30 a.m.
Courtroom: 11, 19th Floor
Judge: Martin J. Jenkins

Case Nos. C03-4669 MJJ (EMC) and C03-2289 MJJ (EMC)
STATEMENT OF UNDISPUTED FACTS

HOWREY LLP

DM_US\8385804.v1

DSMDB-2141613v03

DRAFT**Statement of Undisputed Facts for Summary Judgment No. 1**

1. The Customer ~~Aeroflex~~ Defendants' designs ~~ASICs~~ at issue include a specification of inputs ~~accused designs specify inputs.~~

2. The Customer ~~Aeroflex~~ Defendants' designs ~~ASICs~~ at issue include a specification of outputs ~~accused designs specify outputs.~~

3. The Customer ~~Aeroflex~~ Defendants' designs ~~ASICs~~ at issue ~~accused designs may or may not include a specification of~~ specify registers (which may be flip flops or latches).

4. The Customer Defendant designs at issue, for each clock cycle, include a description of how the values of the outputs and registers should be set according to the value of the inputs, the previous values of the registers and the logic functionality between register locations. [Disputed; this sentence is incomprehensible. To the extent we understand it, there is no record evidence to support it.]

Statement of Undisputed Facts for Summary Judgment No. 2

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Statement of Undisputed Facts for Summary Judgment No. 3

11. Dr. Kobayashi was Simon ~~Dr.~~ Foo's advisor for his master's thesis, attached as Exhibit 66 to the Brothers Declaration.

12. ~~This thesis describes the use of a relational database system to manage very large scale integration designs.~~ [This is an incomplete and misleading characterization.]

13. Dr. Kobayashi and Simon Foo co-authored two papers ~~published that had copyright dates in 1986 which describe systems that use expert knowledge in the selection of functional modules.~~ [The characterization of the papers is disputed. For example, the first paper, "A Framework for Managing VLSI CAD Data" discusses management of data more than selection.]

14. One of these papers, titled "A Framework for Managing VLSI CAD Data," discusses a frame based approach for managing VLSI CAD data, attached as Exhibit 67 to the Brothers Declaration. The level of design described in this paper was technology independent.

15. The other paper, titled "A Knowledge Based System for VLSI module selection," discusses a program called NEPTUNE, ~~which is a system that selects VLSI modules, and based on domain specific knowledge and heuristic rules, helps find optimized solutions,~~ attached as Exhibit 68 to the Brothers Declaration. [The characterization of the paper is disputed. NEPTUNE does not necessarily "help find optimized solutions" on its own. In addition, the level of design described in this paper was technology independent]

16. Neptune is listed as one of the names of the program modules for cell selection that was part of the contract between ICC and Ricoh for the joint development of the Knowledge Based

DRAFT

1 Silicon Compiler (which is attached to the contract between ICC and Ricoh with an effective date of
2 January 15, 1987), ~~and Dr. Simon Foo~~ is listed as one of the two program designers for Neptune.

3 There is no evidence that Mr. Foo did any program design work for ICC in 1987. There is no
4 evidence that the Neptune referenced in the ICC and Ricoh joint project and the NEPTUNE
5 referenced in "A Knowledge Based System for VLSI module selection" were identical.

6 17. ~~Dr. Foo's thesis describes storing hardware cells in a frame based database, as does the~~
7 ~~FAME paper. [Disputed, as the parties do not agree on what comprises "hardware cells." In addition,~~
8 ~~the Foo thesis describes managing and storing design objects in a frame-based database, and the~~
9 ~~FAME paper describes storing design information as a collection of design objects. Finally, Foo was~~
10 ~~not a "Dr." when he wrote his this thesis.]~~

11 18. ~~As described in "A Knowledge Based System for VLSI module selection," the VLSI~~
12 ~~modules that are selected by the NEPTUNE system are hardware cells from the frame based database~~
13 ~~described in the FAME paper and Dr. Foo's thesis, and they are selected using rules stored in an~~
14 ~~expert system knowledge base. [Disputed. The characterizations are incorrect. NEPTUNE and~~
15 ~~Foo's thesis refers to design objects, not hardware cells. In Foo's thesis, design objects are selected~~
16 ~~using functional partitioning stored in a database. The level of design was technology independent.]~~

17 19. ~~Dr. Foo, then a USC graduate student and multi-year collaborator with Dr. Kobayashi,~~
18 ~~contributed to the conception of significant portions of the invention claimed in the '432 patent —~~
19 ~~specifically, each element of the claims (or, at least, a significant portion of those elements) that do~~
20 ~~not deal with architecture independent actions and conditions — through his thesis, co-authored~~
21 ~~papers, and development of the NEPTUNE system. [Disputed. Dr. Kobayashi, without Mr. Foo,~~
22 ~~published an article in 1986 called "A knowledge based approach to VLSI CAD data. This article~~
23 ~~describes a system for translating high level specifications to geometrical VLSI layout. In this~~
24 ~~system, heuristic rules are integrated into a mechanism for mapping macro operations to functional~~
25 ~~modules and the rules are stored in frame implemented knowledge base. In addition, as set forth in~~
26 ~~Ricoh's brief, Dr. Kobayashi met with Mr. Shindo on several occasions and together came up with~~
27 ~~the invention of the '432 patent. Mr. Foo did not show any of his alleged hand drawn figures of the~~
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1 knowledge based silicon compiler until after this lawsuit was initiated. Mr. Foo did not tell anyone
 2 that he was inventor of the Knowledge based silicon compiler until after this lawsuit was initiated.
 3 The work of Mr. Foo was at level of technology independent. The level of design described in the
 4 '432 patent is at a level of technology dependent.]

5 **Statement of Undisputed Facts for Summary Judgment No. 4**

6 20. ~~The~~ An article T.J. Kowalski, D.J. Geiger, W.H. Wolf, and W. Fichtner, "The VLSI
 7 Design Automation Assistant: From Algorithms to Silicon," *IEEE Design and Test of Computers*
 8 *Magazine*, Vol. 2, No. 4, pp. 33-43 ("Kowalski85") ~~was published in~~ has a copyright notice reading
 9 "August 1985." ["Published" is disputed; defendants have the burden to show that the article was
 10 formally "published" as that term is used in patent law, and they have not done so.]

11 21. ~~The thesis "The VLSI design automation assistant: a knowledge based expert system,"~~
 12 ~~written by Thaddeus Julius Kowalski at Carnegie Mellon University, was available to the public via~~
 13 ~~the Carnegie Mellon library in 1984 ("Kowalski Thesis" or "Kowalski84"), and was republished by~~
 14 ~~Kulwer in 1985 in book form. [Disputed: defendants have not established that the thesis was in the~~
 15 ~~CMU library, cataloged, and otherwise "accessible" as required to meet the "publication"~~
 16 ~~requirements.]~~

17 ~~22. Kowalski85 and the Kowalski Thesis describe the same program VLSI Design~~
 18 ~~Automation Assistant ("VDAA"). [This is in dispute as set forth in our brief.]~~

19 23. ~~Dr. Kowalski also provided deposition testimony on the workings of the VDAA~~
 20 ~~system. [Disputed: "workings" is vague; Kowalski did not give a full description of the "workings"~~
 21 ~~of the DAA system, he did not refer to anything as a "VDAA system."]~~

22 24. ~~The VDAA system described in Kowalski85 (DEF018108-18118) as accepted as~~
 23 ~~input an algorithmic description of the behavior of the chip, written in a language known as ISPS, and~~
 24 ~~the ISPS description described the desired functionality of the chip in terms of actions and conditions.~~
 25 [Modified to present an accurate description of the facts.]

26 25. The system described in Kowalski85 (DEF018108-18118) works from a data-flow
 27 representation extracted from ~~T~~the ISPS description ~~was then translated into a data flow graph~~
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representation known as VT by the VDAA system. In the process of compiling the design into a VT, the compiler translated each of the actions and conditions into a predefined operator, which forms the node of the graph. [Modified to present accurate description (see DEF018111). How that description maps to the claims obviously is in dispute.]

26. The nodes in the VT representation were used to select hardware cells from the “technology sensitive database” using expert rules stored in the VDAA system. [Whether “rules” were used to select “hardware cells” is obviously a key issue in dispute. Even whether the so-called “rules” are “applied” DIRECTLY to the VT representation is in dispute.]

27. The rules in the VDAA system were in an IF THEN antecedent format. [Disputed: Kowalski85 does not disclose “rules” in an IF-THEN format.]

28. After the hardware cells were bound using the module binder, a netlist was created by the control allocator. [Disputed: Whether “hardware cells” were bound into a “netlist” is another key issue in dispute.]

29. At deposition, Dr. Kowalski ~~clarified~~ testified (without corroboration) that the “technology sensitive” database discussed in these papers in Kowalski85 contained technology-independent “cell descriptions,” where he defined that term stating that: “It varied. It could be as low as a single an[d] gate or as high and complicated as an ALU. So it is a broad list of possible things.” [Disputed as originally written. Kowalski never testified that Kowalski85 itself disclosed this usage, or even that any “refinement” of the work included AND gates.]

30. In addition to his affiliation with CMU From his CV, Dr. Kowalski has stated he was a researcher at AT&T Bell Laboratories, and after receiving his doctorate in 1984 for his work on VDAA, Dr. Kowalski further refined the program at AT&T. One of these refinements was to eliminate the need for a separate module binder process—the hardware cells were selected, bound, and a netlist was created all in one step. [There is no evidence to support the rest of this. What Kowalski did to “refine” anything called a “VDAA system” is a subject of dispute— one in which defendants have no corroborating evidence.]

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Statement of Undisputed Facts for Summary Judgment No. 5

31. On February 24, 2006, the PTO ordered reexamination of the '432 patent ~~based on Kowalski85 and Kowalski84 [the Kowalski Thesis].~~ [As set forth in Ricoh's opposition, the parties dispute whether the reexam was in response to a petition, whether the reexam was ordered in reliance in part upon the Dirkes thesis, and whether the PTO has drawn any conclusions.]

32. The PTO's order granting reexamination of the '432 patent ~~found~~ stated that "the Kowalski-85 reference (including the inherent teachings of Kowalski84) would have been considered important by a reasonable Examiner in deciding whether or not at least claim 13 was patentable..."

33. The PTO's order granting reexamination of the '432 patent ~~found~~ stated that "Kowalski-85 and Kowalski-84 references were not of record in the file of the '432 patent and are not cumulative to the art of record in the original file."

34. ~~The PTO's order granting reexamination of the '432 patent found that Kowalski85 is material.~~ [Disputed, as set forth in Ricoh's opposition brief. The PTO did not expressly find that Kowalski85 by itself was material. Materiality is sharply disputed; in addition, there was no "finding" by the PTO.]

35. The named '432 patent inventors, Dr. Kobayashi and Mr. Shindo, co-authored with Mr. Suehiro and published "KBSC: A Knowledge-Based Approach to Automate Logic Synthesis" (1989 KBSC Article) in 1989 ~~during prosecution of the '432 patent application.~~ [The implication that there is a linkage between the publication and prosecution is disputed. In addition, the article was published in 1989, and the notice of allowance was issued in 1989.]

36. ~~All three co-authors of the 1989 KBSC Article were substantively involved in the prosecution of the '432 patent.~~ [Disputed. There is no evidence that Suehiro provided anything substantive in connection with the prosecution of the '432 patent.]

37. Kowalski85 describes a system called the VLSI Design Automation Assistant (VDAA).

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38. ~~The 1989 KBSC Article discusses eight prior art systems, including VDAA as disclosed in Kowalski85, and distinguishes those systems from KBSC. [Disputed. Ricoh has not conceded that the “1989 KBSC Article discusses . . . VDAA as disclosed in Kowalski85.”]~~

39. ~~The 1989 KBSC Article refers to VDAA as DAA (or just Design Automation Assistant). [Disputed. Ricoh has not conceded that the “1989 KBSC Article refers to VDAA”, or the implication that that the DAA referenced in Kowalski86 was VDAA as disclosed in Kowalski85.]~~

40. ~~Reference [5] to Kowalski85 in the 1989 KBSC Article is incorrectly cited as being published in 1986. [Disputed. Ricoh has not conceded this point, as stated in the opposition brief.]~~

41. ~~No article exists for Reference [5] as cited in the 1989 KBSC Article (i.e., as a 1986 Kowalski article). [Disputed as written. The August 1986 table of Contents from the *IEEE Design and Test of Computers Magazine* does not show a Kowalski article in that issue, but there is no evidence that any of the authors of the 1989 KBSC Article knew of Kowalski85.]~~

42. ~~Kowalski85 was not disclosed to the PTO prior to issuance of the ‘432 patent in January of 1990. [Disputed, for the reasons set forth in Ricoh’s opposition brief.]~~

43. ~~Kowalski85 was not disclosed to the PTO by anyone substantively involved in the prosecution of the ‘432 patent. [Disputed, for the reasons set forth in Ricoh’s opposition brief.]~~

Statement of Undisputed Facts for Summary Judgment No. 6

44. Ricoh asserts that over 350 of the ~~Customer~~Aeroflex Defendants’ designs ~~ASICs were designed and manufactured using a process that infringes claims 13-17 of the ‘432 claimspatent.~~

45. ~~For each of the over 350 CustomerDefendant designs at issue, the output of the Design Compiler system did not comprise the full design for an ASIC. [Disputed for multiple reasons: “Customer Defendants” is misleading, “”designs at issue” is incorrect, “output of the Design Compiler system” is undefined and not supported by record evidence; “full design of an ASIC” is undefined and not supported by record evidence.”]~~

46. ~~Ricoh accuses in this litigation processes in which tThe Design Compiler system can is used to only be used to design digital portions of ASICs.~~

47. Mixed-signal products may contain both analog and digital portions.

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1 48. The ASIC products Ricoh accuses of infringement in this case that are mixed-signal
 2 products are listed in Exhibit 2 to the August 18, 2006 Declaration of Albert E. Casavant in Support
 3 of Synopsys and the ~~Customer~~Aeroflex Defendants' Motions for Summary Judgment. [Disputed.
 4 We don't agree this is an undisputed fact. Ex 2 says he relied on conversations to get this information.
 5 We have never received proof that this is a true and accurate list of the mixed-signal ASICs.]

6 49. The Corrected Third Supplemental Product Declaration of Robert B. Smith of AMI
 7 dated June 1, 2006 declares that Ffor approximately 2310 of the AMI designs that Ricoh accuses of
 8 infringement, AMI used the Design Compiler system to design only a very small portion of the ASIC
 9 known as "BIST" or "Built-In Self Test." These AMI designs are listed in Exhibit 2 to the August 18,
 10 2006 Declaration of Albert E. Casavant in Support of Synopsys and the ~~Customer~~Aeroflex
 11 Defendants' Motions for Summary Judgment.

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55. ~~Many processing steps must occur between the creation of a Design Compiler netlist output and generation of mask data. [Disputed. This is so general it is meaningless.]~~

56. ~~For each of the 350 designs at issue, additional circuitry must be added to the Design Compiler system netlist prior to the time that mask data can be created. [Disputed. There is no evidence to support this.]~~

Statement of Undisputed Facts for Summary Judgment No. 7

57. ~~There is no evidence that the use of the Design Compiler system drives the demand for Matrox graphics boards. [DISPUTED – misrepresents the legal requirement (“drives the demand”) and even if correct, Lipscomb testified there was such evidence - the infringing use of Design Compiler allows for timely and cost-effective production of the accused Matrox graphics boards, which are packaged and sold as functional units, and which cannot be split into component parts without destroying their functionality; the infringing use of Design Compiler allows Defendants to bring the accused graphics boards to market sooner and at a more attractive price than would be possible without the use of Design Compiler. The patented method is used by Defendants since it gives them the ability to provide error-free product at a reasonable cost and on a timely basis. Soderman Dec. ¶59; see also Brothers Dec. Ex. 11 (Expert Report of Michael J. Wagner), at 18; Brothers Dec. Ex. 10, (Lipscomb Tr.) at 30, 34-35, 40-41, 45. That is what customers demand. Also, it’s not DC, it’s the infringing process.]~~

58. ~~There is no evidence that the use of the Design Compiler system drives the demand for the Customer Aeroflex Defendants’ ASICs. [DISPUTED – misrepresents the legal requirement (“drives the demand”) and even if correct, Lipscomb testified there was such evidence - the infringing use of Design Compiler allows for timely and cost-effective production of the accused ASICs, which are packaged and sold as functional units, and which cannot be split into component parts without destroying their functionality; the infringing use of Design Compiler allows Defendants to bring the~~

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1 accused ASICs to market sooner and at a more attractive price than would be possible without the use
 2 of Design Compiler. The patented method is used by Defendants since it gives them the ability to
 3 provide error-free product at a reasonable cost and on a timely basis. Soderman Dec. ¶59; see also
 4 Brothers Dec. Ex. 11 (Expert Report of Michael J. Wagner), at 18; Brothers Dec. Ex. 10, (Lipscomb
 5 Tr.) at 30, 34-35, 40-41, 45. That is what customers demand. Also, it's not DC, it's the infringing
 6 process.]

7 59. The creation of a design of an ASIC is a necessary step in the production of an ASIC.
 8 The patented process is not required or necessary to the production of an ASIC, although the
 9 alternatives would require use of an entirely different design process that could result in a measurable
 10 increase in cost and delay. Brothers Dec. Ex. 10, (Lipscomb Tr.) at 33-35. . [As originally written,
 11 this sentence does not make sense – you need to have a design.]

12 60. The VIA/1 was ~~manufactured~~ ~~not synthesized~~ during the damages period. [Disputed
 13 as originally written – Matrox admitted that the VIA/1 is a “Commercial ASIC . . . as defined in the
 14 May 5, 2006 Amended Stipulation Re Supplemental Production.” Brothers Dec. Ex. 13 (Second
 15 Supplemental Product Declaration of Eric Boisvert of Matrox Electronic Systems), at 2. That
 16 Stipulation defined a “Commercial ASIC” as “any ASIC . . . that was, between 1997 and the present,
 17 (1) synthesized using Design Compiler for which (2) revenue was received and (3) one or more
 18 physical ASICs were manufactured . . . all three criteria must be met and all three criteria must have
 19 occurred between 1997 and the present for an ASIC to qualify as a ‘Commercial ASIC.’” Brothers
 20 Dec. Ex. 14 (D.I. 459) at 1-2 (emphasis added). Matrox’s declaration that the VIA/1 ASIC is a
 21 “Commercial ASIC” is an admission that the VIA/1 was synthesized and received revenue within the
 22 damages period.]

23 61. ~~There is no evidence that the VIA/1 was synthesized during the damages period.~~
 24 [Disputed, as set forth for ¶60.]

25 62. There is no evidence that any infringing activity for the Matrox Calao; Condor;
 26 CondorPlus; cyclone; Eclipse; Maven; Sunex; Toucan; SIB; and Oasis products took place in the
 27 United States. [DISPUTED – Matrox has made multiple conflicting product declarations, and the
 28

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1 Court has repeatedly instructed Defendants as to the scope of those declarations. See Brothers Dec.
 2 Ex. 1, (Ricoh's Motion to Show Cause); D.I. 443. Matrox agreed to the May 5, 2006 Stipulation and
 3 Order and submitted a sworn declaration in compliance with the Court's Order and with its
 4 obligations under the Stipulation. Brothers Dec. Ex. 14 (D.I. 459) at 1-2; Brothers Dec. Ex. 13
 5 (Matrox May 10, 2006, Product Declarations). Hence, they admitted there was infringing activity.
 6 Ricoh repeatedly requested specific financial data regarding Matrox's declared products, and Matrox
 7 has represented that their production included that requested data, and that data only. Included in the
 8 Amended Stipulation and Order entered by the Court on May 5, 2006, is the requirement that
 9 "Defendants agree to produce financial documents including sales and cost information" with the
 10 condition that "if all synthesis was done in the United States, or the RTL or technology library was
 11 supplied from the United States, or the netlist or mask data was shipped into the United States for
 12 manufacturing, then the producing Defendant will produce worldwide sales information for the newly
 13 identified Commercial ASIC. Otherwise, the producing Defendant will produce only information
 14 regarding sales in the United States." Brothers Dec. Ex. 14 (D.I. 459) at 2. Not until submitting their
 15 motion for summary judgment on this issue did Defendants ever make any allegation that any of the
 16 sales information that they provided was for sales outside of the United States or outside of the
 17 damage period. Ricoh's expert relied on Matrox's representation that all financial documents
 18 involved either (1) ASICs created in the U.S. or (2) ASICs imported into the U.S.]

20 63. ~~Foreign sales of the Matrox Calao; Condor; CondorPlus; Cyclone; Eclipse; Maven;~~
 21 ~~Sunex; Toucan; SIB; and Oasis products should be excluded from the royalty base. [Disputed, as set~~
 22 ~~forth for ¶62, plus this is a conclusion of law based upon disputed interpretations of the evidence.]~~

23 **Statement of Undisputed Facts for Summary Judgment No. 8**

24 64. Ricoh initiated this infringement suit against the ~~Customer~~Aeroflex Defendants on
 25 January 21, 2003, alleging infringement of the '432 patent based on ~~the Customer~~Aeroflex
 26 Defendants' sale of application specific integrated circuits ("ASICs") that were designed by the
 27 Defendants ~~with~~ using a process that among other things included the use of Synopsys' Design

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1 Compiler system, which includes Design Compiler, HDL Compiler for Verilog, VHDL Compiler,
2 and the DesignWare libraries ("the Design Compiler system").

3 65. ~~Ricoh's infringement allegations are based on the premise that software licensed from~~
4 ~~Synopsys and used by the Customer Defendants performs all of the steps of the asserted claims~~
5 ~~except the describing step. [DISPUTED – This "fact" regarding Ricoh's infringement contentions is~~
6 ~~a gross simplification and distortion of Ricoh's infringement contentions. In addition, Ricoh's~~
7 ~~infringement contentions cite to and relies upon on evidence designated confidential by Synopsys and~~
8 ~~Defendants. See Def. Ex. 4. Ricoh's contentions were filed under seal and are clearly marked~~
9 ~~"Confidential Pursuant to Protective Order."]~~

10 66. For the describing step of claim 13, Ricoh contends the limitation is met because
11 when, at least "the ASIC Designer entered a written description of the desired functions of the ASIC
12 Product into HDL Compiler for Verilog."

13 67. Ricoh alleges that the Verilog and VHDL ASIC designs that include HDL operators,
14 including, for example +, *, -, /, >, < and "if," "case," and "wait" statements, comprise "architecture
15 independent actions and conditions," as used in a certain way, which, when input by the
16 Customer Aeroflex Defendants into the Synopsys products in suit, fulfill the describing step and thus
17 infringe the '432 patent. [Disputed as written; we are not alleging EVERY use of a "+" infringes,
18 only those that are used in an "architecture independent" fashion.]

19 68. On October 22, 1990, Ricoh licensed the Design Compiler and HDL Compiler for
20 Verilog from Synopsys. [Disputed. This "fact" is legally irrelevant. The current laches allegations
21 expressly are limited to allegations regarding the actions of KBS between 1991 and January 12, 1997
22 (6 years prior to suit), which paragraph 61 avers was coordinated with Ricoh. The time constraints
23 pled alone eliminate much of Defendants' own cited evidence, including the 1989 article by Dr.
24 Kobayashi (Def. Ex. 66) and the 1990 license between Ricoh and Synopsys (Def. Ex. 67). See, e.g.,
25 (Brothers Dec. Ex. 19, D.I. 177, April 26, 2004, Answer and Counterclaims of Defendant AMI
26 Semiconductor, Inc. at 8). In addition, The Synopsys licenses specifically forbade Ricoh from
27 reverse engineering the source code for the licensed products. See, e.g., Brothers Dec. Ex. 91 at 2SP
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0708480 (prohibiting Ricoh to “decompile, disassemble, reverse engineer or attempt to reconstruct, identify or discover any source code, underlying ideas, underlying user interface techniques or algorithms of the Licensed Product by any means whatever”).]

69. ~~Between 1990 and 1996, Ricoh entered into over 40 contracts with Synopsys for the licensing or support of the products in suit.~~ [Disputed. This “fact” is legally irrelevant as set forth for paragraph 68. In addition, the reference to “products in suit” is wrong, and the contracts were not all for the “Design Compiler products.” In addition, if the assertion is meant to imply Ricoh knew or should have known that the ASIC Defendants were actually using the patented process to design and manufacture ASICs for sales in the United States, it is disputed, as Mr. Ishijima has testified to the contrary.]

70. The co-owner of the asserted patent, KBSC, ~~also took a licensed~~ certain software tools from Synopsys in July of 1993, and renewed that license in 1995. Ex. 69 at SP00001-SP00032. KBSC was contractually prohibited from reverse engineering or investigating the inner workings of the licensed software tools.

71. ~~As licensees, both Ricoh and KBSC received product manuals describing the use and functionality of the tools comprising the Design Compiler system.~~ [Disputed. For Ricoh, this “fact” is legally irrelevant as set forth in paragraphs 68 and 69. In addition, the statement is overbroad for the Ricoh manuals, and the characterization is incomplete and misleading. For KBSC, there is no record evidence of any KBSC manuals, or when those manuals were received by KBSC. In addition, Synopsys restricted the use of the manuals and has marked them as Confidential. There is no evidence to assume that any manuals (1) contained sufficient disclosure to make it reasonable to conclude that KBSC (or Ricoh) knew or should have known Design Compiler involved those other steps of the patented process (none of the three technical experts engaged by defendants have provided any report to support this) and (2) that they were received more than six years before the filing of this action.]

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72. ~~In January of 1990, Synopsys' HDL Compiler won the *Electronic Products* magazine's product of the year award. Ex. 71. [Disputed. This is legally irrelevant as it is pre-1991 activity that is outside the scope of Defendants' pleadings, as set forth above.]~~

73. ~~By 1997, Synopsys had an over 80% share of the logic synthesis tool market. [Disputed. There is no record evidence to support this statement. Also, when in 1997?]~~

74. ~~In 1990, Electronic Engineering Times reported on Matrox Electronics' use of Synopsys' synthesis tools. Ex. 74. [Disputed. This is legally irrelevant as it is pre-1991 activity that is outside the scope of Defendants' pleadings, as set forth above. Also, there is no disclosure of where this activity supposedly was taking place; in Ricoh's opposition, we say it (at least) implies in Canada; there is no evidence that Ricoh knew or had reason to know Matrox was doing anything in the United States prior to 2000 or 2001.]~~

75. ~~In 1991, Electronic News reported on AMI's development of cell libraries for use with Synopsys' Design Compiler product. Ex. 75. [Disputed – this is irrelevant because it is outside the scope of their pleadings – AMI's activity is irrelevant except with respect to their licensing of Design Compiler. The only reference to Defendants' activity in the pleadings is “63. [Defendant] purchased the Design Compiler software from Synopsys.” See, e.g., (Brothers Dec. Ex. 19, D.I. 177, April 26, 2004, Answer and Counterclaims of Defendant AMI Semiconductor, Inc. at 8. Also, Def. Ex. 75 is a 1991 report that AMI was trying to develop a product without any forecast about when, if ever, it would be used; Def. Ex. 77 indicates AMI failed to have any product until some unknown time in 1996 and even then does not contain any indication that AMI's entry at that time had any relationship to DC.]~~

76. ~~In 1996, the AMI website disclosed that “AMI Design Kits support EDA tools from vendors such as Synopsys.” Ex. 78. [Disputed as set forth in ¶75. Also, Def. Ex. 78 is undated, not authenticated, and states that AMI's products “support EDA tools from vendors such as Synopsys”, but does not even say that AMI was actually using Synopsys tools (or which of the Synopsys tools) alone or in combination with its own products.]~~

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77. In 1996, the Aeroflex website (at the time under the company's former name, UTMC) contained a November 28, 1995 press release in which UTMC announced the introduction of its VHDL design kits to enhance customers' VHDL-based ASIC designs and systems. Ex. 79. [Disputed as set forth in ¶75. Also, Ex. 79 is prospective only (we are going to introduce next year), and does not suggest this had anything to do w/DC or say what Aeroflex was doing.]

78. The Synopsys website from 1997 contains a list of Synopsys Semiconductor Vendor Program participants, including AMI and UTMC (Aeroflex), who had developed strategic relationships with Synopsys to take full advantage of ASIC technology advancements. Ex. 80. [Disputed as set forth in ¶75. Also, it is not clear from the website whether the information was available more than six years prior to suit. Ex. 80 says Aeroflex and AMI are companies which offered libraries for use with Synopsys products. It does not provide a basis for speculating, much less having reason to know, whether either company was using any Synopsys product in the U.S. so as to infringe the patent in suit.]

Statement of Undisputed Facts for Summary Judgment No. 9

79. Ricoh has represented that it will not claim enhanced damages due to willfulness.

Statement of Undisputed Facts for Ricoh's Summary Judgment Motion

80. Aeroflex does not contend that sales of the following products received authorization and consent: UTCAM-Engine, JW01, KD08A, KD11A, JF01A/B, YA04/YA13, YB01, DA01, DA02, JW02, and KC01A.

82. The Customer Aeroflex Defendants could have used non-infringing alternatives that Ricoh has not accused of infringement, such as tools by Cadence Design Systems, Inc. and Mentor Graphics Corp., to synthesize their ASICs.

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83. The end customer (ASIC consumer) requires ~~cares about~~ the functionality of the ASIC,
rather than a specific design flow.

84. ~~The use of the '432 methods claimed in claims 13-17 is not embodied in the structure
or composition of any article used in creating using any of the accused designs at issue.~~ [Disputed; to
the extent we understand this, it appears to be inconsistent with how the ASICs are actually used.]

85. The use of the '432 methods claimed in claims 13-17 is not required ~~used in~~
machinery, tools, or methods whose use necessarily results from manufacturing and delivering ASICs
to an end user under the Government contracts at issue in Ricoh's motion.

Dated: September 12, 2006

HOWREY LLP

By: /s/

Denise M. De Mory
Attorney for Plaintiff SYNOPSYS, INC.
and Defendants AEROFLEX
INCORPORATED, AMI
SEMICONDUCTOR, INC., MATROX
ELECTRONIC SYSTEMS, LTD.,
MATROX GRAPHICS INC., MATROX
INTERNATIONAL CORP., MATROX
TECH, INC., and AEROFLEX
COLORADO SPRINGS, INC.

Dated: September 12, 2006

DICKSTEIN SHAPIRO LLP

By: /s/DRAFT

Kenneth W. Brothers
Attorney for Plaintiff RICOH COMPANY,
LTD.

Exhibit 3

Andelman, Ethan

From: DeMory, Denise
Sent: Tuesday, September 12, 2006 8:10 PM
To: Brothers, Kenneth
Cc: Allen, DeAnna; Fink, Jacky; Andelman, Ethan; Barbisch, Rebecca; Weinstein, Michael; Meilman, Edward; olivere@dicksteinsharp.com
Subject: Use This Draft Please
Attachments: separate statement 808 pm.DOC

Ken:

Please use this draft as opposed to the one I sent moments ago.

Denise



separate
ment 808 pm.Di

DRAFT

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 10 and for Defendants AEROFLEX INCORPORATED,
 11 AMI SEMICONDUCTOR, INC., MATROX
 12 ELECTRONIC SYSTEMS, LTD., MATROX
 13 GRAPHICS, INC., MATROX INTERNATIONAL
 14 CORP., MATROX TECH, INC., and
 15 AEROFLEX COLORADO SPRINGS, INC.

UNITED STATES DISTRICT COURT
 NORTHERN DISTRICT OF CALIFORNIA
 SAN FRANCISCO DIVISION

RICOH COMPANY, LTD.,

Plaintiff,

vs.

16 AEROFLEX INCORPORATED, AMI
 17 SEMICONDUCTOR, INC., MATROX
 18 ELECTRONIC SYSTEMS LTD., MATROX
 19 GRAPHICS INC., MATROX
 20 INTERNATIONAL CORP., MATROX TECH,
 21 INC., AND AEROFLEX COLORADO
 22 SPRINGS, INC.

Defendants.

SYNOPSISYS, INC.,

Plaintiff,

vs.

RICOH COMPANY, LTD.,

Defendant.

Case No. C03-04669 MJJ (EMC)

Case No. C03-02289 MJJ (EMC)

**JOINT STATEMENT OF UNDISPUTED
 FACTS RE PENDING MOTIONS FOR
 SUMMARY JUDGMENT**

Date: September 26, 2006
 Time: 9:30 a.m.
 Courtroom: 11, 19th Floor
 Judge: Martin J. Jenkins

Case Nos. C03-4669 MJJ (EMC) and C03-2289 MJJ (EMC)
 STATEMENT OF UNDISPUTED FACTS

HOWREY LLP

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This Joint Statement of Facts is proposed in accordance with Local Rule 56-2(b) and the Standing Order of the Honorable Martin J. Jenkins.

Statement of Undisputed Facts for Summary Judgment No. 1

[Awaiting comments from Ricoh; Defendant/Synopsys provided Soderman deposition cites to which Ricoh has not yet responded].

1. The Customer ~~Aeroflex~~ Defendants' designs ASICs at issue include a specification of ~~inputs~~ accused designs specify inputs.
2. The Customer ~~Aeroflex~~ Defendants' designs ASICs at issue include a ~~specification of outputs~~ accused designs specify outputs.
3. The Customer ~~Aeroflex~~ Defendants' designs ASICs at issue accused designs may or may not include a specification of specify registers (which may be flip-flops or latches).
4. The Customer Defendant designs at issue, for each clock cycle, include a description of how the values of the outputs and registers should be set according to the value of the inputs, the previous values of the registers and the logic functionality between register locations. [Disputed; this sentence is incomprehensible. To the extent we understand it, there is no record evidence to support it.]

Statement of Undisputed Facts for Summary Judgment No. 2

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Statement of Undisputed Facts for Summary Judgment No. 3

[We are at an impasse regarding facts 12-16, 19; they will go in Rule 56 declaration]

11. Dr. Kobayashi was Simon Foo's advisor for his master's thesis, attached as Exhibit 66 to the Brothers Declaration-

12. ~~This thesis describes the use of a relational database system to manage very large scale integration designs.~~ [This is an incomplete and misleading characterization.]

13. Dr. Kobayashi and Simon Foo co-authored two papers published that had copyright dates in 1986.

17. Both the Foo Thesis and the FAME paper discuss storing representations of functional modules in a frame-based database.

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18. As described in "A Knowledge Based System for VLSI module selection," the VLSI modules that are selected by the NEPTUNE system are selected using rules stored in an expert system knowledge base. Brothers Decl., Ex. 68, at 184 ("This paper introduces a frame-based system for selecting VLSI modules, called NEPTUNE. Based on domain specific knowledge and heuristic rules, NEPTUNE assists IC designers to select an optimized solution, and explore different implementation alternatives.")

19.

Statement of Undisputed Facts for Summary Judgment No. 4

20. The ~~An~~ article T.J. Kowalski, D.J. Geiger, W.H. Wolf, and W. Fichtner, "The VLSI Design Automation Assistant: From Algorithms to Silicon," *IEEE Design and Test of Computers Magazine*, Vol. 2, No. 4, pp. 33-43 ("Kowalski85") was published in ~~has a copyright notice reading "August 1985."~~ ~~["Published" is disputed; defendants have the burden to show that the article was formally "published" as that term is used in patent law, and they have not done so.]~~

20a. An article written by T.J. Kowalski, D.J. Geiger, W.H. Wolf, and W. Fichtner entitled "The VLSI Design Automation Assistant: From Algorithms to Silicon" is listed in the table of contents of the August 1985 issue of *IEEE Design and Test of Computers Magazine* as appearing at pp. 33-43. This article is referred to by the parties as "Kowalski85."

20b. Kowalski85 was published in August 1985.

20c. *IEEE Design and Test of Computers Magazine* is a periodical.

20d. *IEEE Design and Test of Computers Magazine* is a periodical which is publicly available from at least one library.

20e. The August 1985 issue of *IEEE Design and Test of Computers Magazine* is publicly available from at least one library.

20f. The August 1985 issue of *IEEE Design and Test of Computers Magazine* was publicly available from at least one library prior to January 13, 1987.

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21. ~~The thesis “The VLSI design automation assistant: a knowledge-based expert system,”~~
~~written by Thaddeus Julius Kowalski at Carnegie Mellon University, was available to the public via~~
~~the Carnegie Mellon library in 1984 (“Kowalski Thesis” or “Kowalski84”), and was republished by~~
~~Kulwer in 1985 in book form. [Disputed; defendants have not established that the thesis was in the~~
~~CMU library, cataloged, and otherwise “accessible” as required to meet the “publication”~~
~~requirements.]~~

21a. Thaddeus Julius Kowalski authored a thesis at Carnegie Mellon University entitled “The
VLSI design automation assistant: a knowledge-based expert system.” This thesis is referred to by
the parties as “Kowalski Thesis” or “Kowalski84.”

21b. The Carnegie Mellon University online card catalog lists a publication date of 1984 for
the Kowalski Thesis. (De Mory Ex. 101.)

21c. The Kowalski Thesis contains an indication that it is designated as SRC Report CMU-
CAD-84-29. Brothers Decl., Ex. 82 at cover page.

21d. The work on the Kowalski Thesis was financed in part by the National Science
Foundation. Brothers Decl., Ex. 82 at Acknowledgements.

21e. The Kowalski Thesis contains a limited distribution notice stating that the thesis has
been, or will be, submitted for publication, has been issued as a Research Report for dissemination of
its contents, and because of potential transfer of copyright to the publisher, distribution outside CMU
is limited to peers and specific requests until publication. Id.

~~22. Kowalski85 and the Kowalski Thesis describe the same program — VLSI Design~~
~~Automation Assistant (“VDAA”). [This is in dispute as set forth in our brief.]~~

22a. Kowalski85 and the Kowalski Thesis describe versions of the same program, which is
entitled VLSI Design Automation Assistant. Kowalski Depo. at 9:14-17 & 13:5-12; Kowalski85 at
Note 8 (citation to Kowalski Thesis).

22b. The parties refer to the VLSI Design Automation Assistant as “VDAA.”

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23. ~~Dr. Kowalski also provided deposition testimony on the workings of the VDAA system. [Disputed: "workings" is vague; Kowalski did not give a full description of the "workings" of the DAA system, he did not refer to anything as a "VDAA system."]~~

23a. ~~Dr. Kowalski provided deposition testimony in this case on May 23, 2006, pursuant to a subpoena served by Ricoh.~~

23b. ~~Dr. Kowalski provided deposition testimony on the VDAA program, Kowalski85, and the Kowalski Thesis, among other topics, in response to questions posed by Ricoh's attorneys.~~

24. ~~The VDAA system described in Kowalski85 (DEF018108-18118) as accepted as input an algorithmic description of the behavior of the chip, written in a language known as ISPS, and the ISPS description described the desired functionality of the chip in terms of actions and conditions. [Modified to present an accurate description of the facts.]~~

24a. ~~The VDAA system inputs an algorithmic description in a programming language known as "ISP." [sic] The VDAA system transforms the algorithmic description into a network of functional modules (e.g., registers, adders, multiplexers) using expert knowledge. See Soderman Rebuttal Report at 19:2-7.~~

~~[Facts 25-27 are supported by the citations to evidence contained in Exhibits A and B to our Motion; you did not dispute any of these facts. If you will not agree to them as written, we will put them in our Rule 56 declaration]~~

25. ~~The system described in Kowalski85 (DEF018108-18118) works from a data-flow representation extracted from the ISPS description was then translated into a data-flow graph representation known as VT by the VDAA system. In the process of compiling the design into a VT, the compiler translated each of the actions and conditions into a predefined operator, which forms the node of the graph. [Modified to present accurate description (see DEF018111). How that description maps to the claims obviously is in dispute.]~~

26. ~~The nodes in the VT representation were used to select hardware cells from the "technology sensitive database" using expert rules stored in the VDAA system. [Whether "rules" were~~

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used to select "hardware cells" is obviously a key issue in dispute. Even whether the so-called "rules" are "applied" DIRECTLY to the VT representation is in dispute.]

27. The rules in the VDAA system were in an IF THEN antecedent format. [Disputed: Kowalski85 does not disclose "rules" in an IF THEN format.]

28. [See Kowalski Depo. at 106:7-13] After the hardware cells were bound using the module binder, a netlist was created by the control allocator. [Disputed: Whether "hardware cells" were bound into a "netlist" is another key issue in dispute.]

29. [See Kowalski Depo. at 83:5-24.] At deposition, Dr. Kowalski ~~clarified~~ testified (without corroboration) that the "technology sensitive" database discussed in these papers in Kowalski85 contained technology-independent "cell descriptions," where he defined that term stating that: "It varied. It could be as low as a single an[d] gate or as high and complicated as an ALU. So it is a broad list of possible things." [Disputed as originally written. Kowalski never testified that Kowalski85 itself disclosed this usage, or even that any "refinement" of the work included AND gates.]

30. In addition to his affiliation with CMU ~~From his CV~~, Dr. Kowalski ~~has stated he was a~~ researcher at AT&T Bell Laboratories, and after receiving his doctorate in 1984 for his work on VDAA, Dr. Kowalski further refined the program at AT&T. One of these refinements was to eliminate the need for a separate module binder process — the hardware cells were selected, bound, and a netlist was created all in one step. [There is no evidence to support the rest of this. What Kowalski did to "refine" anything called a "VDAA system" is a subject of dispute — one in which defendants have no corroborating evidence.]

30a. Dr. Kowalski was affiliated with AT&T Bell Laboratories. Kowalski85, title line.

30b. Dr. Kowalski refined the VDAA program while at AT&T. Kowalski Depo. 14:4-6; 77:16-20; 78:15-79:19; 94:20-99:17; 104:8-21; 118:7-119:12; 130:6-131:3.

30c. One of these refinements to VDAA was to eliminate the need for a separate module binder process. *Id.*; see also Kowalski Depo. Ex. 463.

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30d. Under this refinement, the VDAA program itself selected and bound hardware cell, and created a netlist, without the need for a separate module binder. *Id.*; see also Kowalski Depo. Ex. 463.

Statement of Undisputed Facts for Summary Judgment No. 5

31. On February 24, 2006, the PTO ordered reexamination of the '432 patent based on a request "that '432 patent claims 13-17 are anticipated under 35 U.S.C. sect. 102 in light of the following references: T.J. KOWALSKI, D.J. Geiger, W.H. Wolf, W. Fichtner, The VLSI Design Automation Assistant: From Algorithms to Silicon, IEEE Design & Test, pp. 33-43 (1985). (i.e., "KOWALSKI-85") [and] Thaddeus Julius KOWALSKI, The VLSI Design Automation Assistant: A Knowledge-Based Expert System, Carnegie-Mellon University PhD Thesis, April 1984. (i.e., "KOWALSKI-84").

32. The February 24, 2006 PTO order granting reexamination of the '432 patent stated that "the Kowalski-85 reference (including the inherent teachings of Kowalski84) would have been considered important by a reasonable Examiner in deciding whether or not at least claim 13 was patentable...."

33. The February 24, 2006 PTO order granting reexamination of the '432 patent stated that "Kowalski-85 and Kowalski-84 references were not of record in the file of the '432 patent and are not cumulative to the art of record in the original file."

35. The named '432 patent inventors, Dr. Kobayashi and Mr. Shindo, co-authored with Mr. Suehiro and published "KBSC: A Knowledge-Based Approach to Automated Logic Synthesis" (1989 KBSC Article) in 1989. According to the cover page footer of the article, the manuscript for the 1989 KBSC Article was submitted in November 1988 and revised for publication in February 1989. The '432 patent Notice of Allowability was mailed on November 29, 1989, and the '432 patent issued on May 1, 1990

36. KBSC00002884 is a letter in Japanese dated November 27, 1987 from Mr. Shindo to Dr. Kobayashi. A translation of the letter is at Exhibit 93. The letter states that it is "[r]egarding the

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1 joint patent application by ICC and Ricoh.” The letter further states that “[i]n order to file the patent
2 application, we will need to have a meeting with a US patent agent regarding the preparation of a US
3 patent specification.” The agenda for the meeting included the “[c]ompletion of patent specification.”
4 The meeting was scheduled for December 8-9, 1987 at ICC Columbia and included among the
5 participants Dr. Kobayashi, Mr. Shindo, and Mr. Suehiro.

6 36B. Mr. Suehiro was an attendee at the December 8-9, 1987 meeting relating to ~~the~~ what
7 became the application for the ‘432 patent.

8 37. Kowalski⁸⁵ describes a system called the VLSI Design Automation Assistant
9 (VDAA).

10 38. [Will go in Rule 56 Declaration]

11 39. [Will go in Rule 56 Declaration]

12 40. [Will go in Rule 56 Declaration]

13 41. [Will go in Rule 56 Declaration as written; will include agreed fact]. The August 1986
14 table of Contents from the *IEEE Design and Test of Computers Magazine* does not show a Kowalski
15 article in that issue.

16 41A. The August 1985 table of Contents from the *IEEE Design and Test of Computers*
17 *Magazine* does show a Kowalski article in that issue cited as “T.J. Kowalski, D.J. Geiger, W.H. Wolf,
18 W. Fichtner, The VLSI Design Automation Assistant: From Algorithms to Silicon, *IEEE Design &*
19 *Test*, pp. 33-43 (1985).”

20 42. Kowalski⁸⁵ is not listed on the cover page of the ‘432 patent as a reference that was
21 considered by the patent examiner, and a physical copy of Kowalski⁸⁵ is not included in the ‘432
22 prosecution file history.

23 43. During the prosecution of the ‘432 patent, the Applicants supplied to the PTO an
24 article entitled “FLAMEL: A High-Level Hardware Compiler” by Trickey. On the first page of the
25 Trickey article, it states that “Some examples of compilers that operate this way are: the CMU-DA
26 project [1], particularly the Design Automation Assistant [2], [3] portion; Arsenic [4]; the USC
27 Design Automation project [5]; the AT&T Bell Labs VLSI Design Automation Assistant [6]; and SC
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[7]." Reference [6] is Kowalski85, and the Trickey paper provides a full citation to Kowalski85. Kowalski85 is not referenced again in the Trickey paper.

Statement of Undisputed Facts for Summary Judgment No. 6

44. ~~Ricoh asserts that over 350 of the Customer Aeroflex Defendants' designs ASICs were designed and manufactured using a process that infringes claims 13-17 of the '432 claims patent.~~

44a. 231 of the over 350 ASICs at issue in this case are AMI Semiconductor, Inc. ASICs for which the only logic synthesis performed by AMI Semiconductor, Inc. using the Design Compiler system was the creation of a BIST (Built In Self Test) memory controller. These 231 ASICs are listed in the June 1, 2006 Corrected Third Supplemental Product Declaration of Robert B. Smith of AMI.

44b. A BIST is not an ASIC, but merely a portion of an ASIC whose only purpose is to allow testing of a memory device on the chip prior to shipment to the customer.

44c. Of the over 350 ASICs at issue, at least the following Aeroflex, Inc. and Aeroflex Colorado Springs, Inc. ASICs are mixed-signal ASICs: JW01, YA04/YA13, YB01, DA01, DA02, JW02.

44d. Of the over 350 ASICs at issue, at least the following Matrox Electronic Systems Ltd., Matrox Graphics, Inc., Matrox International Corp., and Matrox Tech, Inc. ASICs are mixed-signal ASICs: Cyclone, Eclipse, Eclipse PCI, Calao, Toucan, Condor, Condor Plus, Parhelia, Sundog, Parhelia8x, Sunex, Maven, Rainbow Runner, Twister.

44e. Of the over 350 ASICs at issue, at least the following AMI Semiconductor, Inc. ASICs are mixed-signal ASICs: 11241-801, 802, 803; 0QJBW-001, 002, 900, 901, 902, 903, 904, 905, 906; 11636-501; 14167-001; 14948-501, 502, 503; 15088-501; 15124-501, 502; 19007-001; 19075-001, 002, 003; 19320-001; 19371-001; 19402-001; 0JGBE-001, 002, 900, 901, 902; 19293-001, 002, 004; 19070-001, 002; 19134-001; 0MNTA-900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911,

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912, 913, 914; 13855-501; 15078-001, 002; 19219-001, 002, 003; 19299-001; 19409-001, 002, 003;
 19428-001; 19429-001, 002, 003; 19529-001; 19558-002; 19608-001; 19645-001; 19664-002; 19693-
 001, 002; 0AFCB-002; D1AFCC; 0APSE-002; 0C621-003; 0C622-003; D1CORC; D1CORD;
 0HISB-001; 0IEBA-002; D1SEBA.

44f. For all ASIC designs, the Design Compiler system cannot be used to design certain portions of the ASIC such as instantiated pad cells, asynchronous logic, and hand instantiated logic. (Casavant Decl., ¶ 10; Brothers Decl., Ex. 27 (Casavant report) at 7).

45. For each of the over 350 Customer/Defendant designs at issue, the output of the Design Compiler system did not comprise the full design for an ASIC. [Disputed for multiple reasons: "Customer Defendants" is misleading, "designs at issue" is incorrect, "output of the Design Compiler system" is undefined and not supported by record evidence; "full design of an ASIC" is undefined and not supported by record evidence.]

46. [Will go in Rule 56 declaration as written; will include the following and propose 56b]. Ricoh accuses in this litigation processes in which the Design Compiler system can be used to only be used to design digital portions of ASICs.

46a. Design Compiler cannot be used to synthesize analog portions of an ASIC.

47. [Will go in Rule 56 Declaration]. Mixed signal products may contain both analog and digital portions.

48. [Will go in Rule 56 Declaration]. The ASIC products Ricoh accuses of infringement in this case that are mixed signal products are listed in Exhibit 2 to the August 18, 2006 Declaration of Albert E. Casavant in Support of Synopsys and the Customer/Aeroflex Defendants' Motions for Summary Judgment. [Disputed. We don't agree this is an undisputed fact. Ex 2 says he relied on conversations to get this information. We have never received proof that this is a true and accurate list of the mixed signal ASICs.]

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1 49. The Corrected Third Supplemental Product Declaration of Robert B. Smith of AMI
2 dated June 1, 2006 declares that Ffor approximately 2310 of the AMI designs that Ricoh accuses of
3 infringement, AMI used the Design Compiler system to design only a very small portion of the ASIC
4 known as "BIST" or "Built-In Self Test." These AMI designs are listed in Exhibit 2 to the August 18,
5 2006 Declaration of Albert E. Casavant in Support of Synopsys and the Customer Aeroflex
6 Defendants Defendants' Motions for Summary Judgment.

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1 55. [Will go in Rule 56 Declaration] Many processing steps must occur between the
 2 creation of a Design Compiler netlist output and generation of mask data. [Disputed. This is so
 3 general it is meaningless.]

4 56. [Will go in Rule 56 Declaration] For each of the 350 designs at issue, additional
 5 circuitry must be added to the Design Compiler system netlist prior to the time that mask data can be
 6 created. [Disputed. There is no evidence to support this.]

7 **Statement of Undisputed Facts for Summary Judgment No. 7**

8 57. There is no evidence that customers purchase the accused Matrox graphics boards
 9 because Design Compiler is used as part of the design process. There is no evidence that the use of
 10 the Design Compiler system drives the demand for Matrox graphics boards. [DISPUTED—
 11 misrepresents the legal requirement (“drives the demand”) and even if correct, Lipscomb testified
 12 there was such evidence—the infringing use of Design Compiler allows for timely and cost effective
 13 production of the accused Matrox graphics boards, which are packaged and sold as functional units,
 14 and which cannot be split into component parts without destroying their functionality; the infringing
 15 use of Design Compiler allows Defendants to bring the accused graphics boards to market sooner and
 16 at a more attractive price than would be possible without the use of Design Compiler. The patented
 17 method is used by Defendants since it gives them the ability to provide error free product at a
 18 reasonable cost and on a timely basis. Soderman Dec. ¶59; see also Brothers Dec. Ex. 11 (Expert
 19 Report of Michael J. Wagner), at 18; Brothers Dec. Ex. 10, (Lipscomb Tr.) at 30, 34-35, 40-41, 45.
 20 That is what customers demand. Also, it’s not DC, it’s the infringing process.]

21 58. There is no evidence that customers purchase the accused Defendant ASICs because
 22 Design Compiler is used as part of the design process. There is no evidence that the use of the Design
 23 Compiler system drives the demand for the Customer Aeroflex Defendants’ ASICs. [DISPUTED—
 24 misrepresents the legal requirement (“drives the demand”) and even if correct, Lipscomb testified
 25 there was such evidence—the infringing use of Design Compiler allows for timely and cost effective
 26 production of the accused ASICs, which are packaged and sold as functional units, and which cannot
 27 be split into component parts without destroying their functionality; the infringing use of Design
 28

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~~Compiler allows Defendants to bring the accused ASICs to market sooner and at a more attractive price than would be possible without the use of Design Compiler. The patented method is used by Defendants since it gives them the ability to provide error-free product at a reasonable cost and on a timely basis. Soderman Dec. ¶59; see also Brothers Dec. Ex. 11 (Expert Report of Michael J. Wagner), at 18; Brothers Dec. Ex. 10, (Lipsecomb Tr.) at 30, 34-35, 40-41, 45. That is what customers demand. Also, it's not DC, it's the infringing process.]~~

59. ~~The Aeroflex Defendants could have used alternatives that Ricoh has not accused of infringement, such as tools by Cadence Design Systems, Inc. and Mentor Graphics Corp., to synthesize their ASICs. The creation of a design of an ASIC is a necessary step in the production of an ASIC. The patented process is not required or necessary to the production of an ASIC, although the alternatives would require use of an entirely different design process that could result in a measurable increase in cost and delay. Brothers Dec. Ex. 10, (Lipsecomb Tr.) at 33-35. [As originally written, this sentence does not make sense — you need to have a design.]~~

60. ~~The VIA/I was manufactured not synthesized during the damages period. [Disputed as originally written — Matrox admitted that the VIA/I is a “Commercial ASIC . . . as defined in the May 5, 2006 Amended Stipulation Re Supplemental Production.” Brothers Dec. Ex. 13 (Second Supplemental Product Declaration of Eric Boisvert of Matrox Electronic Systems), at 2. That Stipulation defined a “Commercial ASIC” as “any ASIC . . . that was, between 1997 and the present, (1) synthesized using Design Compiler for which (2) revenue was received and (3) one or more physical ASICs were manufactured . . . all three criteria must be met and all three criteria must have occurred between 1997 and the present for an ASIC to qualify as a ‘Commercial ASIC.’” Brothers Dec. Ex. 14 (D.I. 459) at 1-2 (emphasis added). Matrox’s declaration that the VIA/I ASIC is a “Commercial ASIC” is an admission that the VIA/I was synthesized and received revenue within the damages period.]~~

~~61. There is no evidence that the VIA/I was synthesized during the damages period. [Disputed, as set forth for ¶60.]~~

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62. There is no evidence that any infringing activity for the Matrox Calao; Condor; CondorPlus; Cyclone; Eclipse; Maven; Sunex; Toucan; SIB; and Oasis products took place in the United States. There is no evidence that any infringing activity for the Matrox Calao; Condor; CondorPlus; cyclone; Eclipse; Maven; Sunex; Toucan; SIB; and Oasis products took place in the United States. [DISPUTED—Matrox has made multiple conflicting product declarations, and the Court has repeatedly instructed Defendants as to the scope of those declarations. See Brothers Dec. Ex. 1, (Ricoh's Motion to Show Cause); D.I. 443. Matrox agreed to the May 5, 2006 Stipulation and Order and submitted a sworn declaration in compliance with the Court's Order and with its obligations under the Stipulation. Brothers Dec. Ex. 14 (D.I. 459) at 1-2; Brothers Dec. Ex. 13 (Matrox May 10, 2006, Product Declarations). Hence, they admitted there was infringing activity. Ricoh repeatedly requested specific financial data regarding Matrox's declared products, and Matrox has represented that their production included that requested data, and that data only. Included in the Amended Stipulation and Order entered by the Court on May 5, 2006, is the requirement that "Defendants agree to produce financial documents including sales and cost information" with the condition that "if all synthesis was done in the United States, or the RTL or technology library was supplied from the United States, or the netlist or mask data was shipped into the United States for manufacturing, then the producing Defendant will produce worldwide sales information for the newly identified Commercial ASIC. Otherwise, the producing Defendant will produce only information regarding sales in the United States." Brothers Dec. Ex. 14 (D.I. 459) at 2. Not until submitting their motion for summary judgment on this issue did Defendants ever make any allegation that any of the sales information that they provided was for sales outside of the United States or outside of the damage period. Ricoh's expert relied on Matrox's representation that all financial documents involved either (1) ASICs created in the U.S. or (2) ASICs imported into the U.S.]

62Aa. There is no evidence that any infringing activity for the Matrox Maven product took place in the United States.

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63. If there was no infringing activity in the United States for the Matrox Calao; Condor; CondorPlus; Cyclone; Eclipse; Sunex; Toucan; SIB; and Oasis products, then foreign sales of the products should be excluded from the royalty base.

63Aa. If there was no infringing activity in the United States for the Matrox Maven product, then foreign sales of the Maven product should be excluded from the royalty base.

~~63. Foreign sales of the Matrox Calao; Condor; CondorPlus; Cyclone; Eclipse; Maven; Sunex; Toucan; SIB; and Oasis products should be excluded from the royalty base. [Disputed, as set forth for ¶62, plus this is a conclusion of law based upon disputed interpretations of the evidence.]~~

Statement of Undisputed Facts for Summary Judgment No. 8

64. Ricoh initiated this infringement suit against the Defendants on January 21, 2003, alleging infringement of the '432 patent based on the Defendants' sale of application specific integrated circuits ("ASICs") that were designed by the Defendants using a process that among other things included the use of Synopsys' Design Compiler system, which includes Design Compiler, HDL Compiler for Verilog, VHDL Compiler, and the DesignWare libraries ("the Design Compiler system").

~~65. Ricoh's infringement allegations are based on the premise that software licensed from Synopsys and used by the Customer Defendants performs all of the steps of the asserted claims except the describing step. [DISPUTED—This "fact" regarding Ricoh's infringement contentions is a gross simplification and distortion of Ricoh's infringement contentions. In addition, Ricoh's infringement contentions cite to and relies upon on evidence designated confidential by Synopsys and Defendants. See Def. Ex. 4. Ricoh's contentions were filed under seal and are clearly marked "Confidential Pursuant to Protective Order."]~~

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66. For the describing step of claim 13, Ricoh contends the limitation is met when, at least “the ASIC Designer entered a written description of the desired functions of the ASIC Product into HDL Compiler.”

67. [We are still considering this language] Ricoh alleges that the Verilog and VHDL ASIC designs that include HDL operators, including, for example +, *, -, /, >, < and “if,” “case,” and “wait” statements, comprise “architecture independent actions and conditions,” as used in a certain way, which, when input by the Defendants into the Synopsys products in suit, fulfill the describing step and thus infringe the ‘432 patent.

67a. Ricoh had no more information about the alleged architecture independent nature of the Defendants’ Verilog and VHDL ASIC inputs when it initiated this suit than it had before January 21, 1997.

68. On October 22, 1990, Ricoh licensed the Design Compiler and HDL Compiler for Verilog from Synopsys. [Ricoh objections: legally irrelevant; not plead].

68a. The Synopsys licenses specifically forbade Ricoh from reverse engineering the source code for the licensed products. [Defendant objection: legally irrelevant]

68b. Ricoh had not reverse engineered the licensed Synopsys software prior to the time it filed the lawsuit against Defendants.

[Disputed. This “fact” is legally irrelevant. The current laches allegations expressly are limited to allegations regarding the actions of KBS between 1991 and January 12, 1997 (6 years prior to suit), which paragraph 61 avers was coordinated with Ricoh. The time constraints pled alone eliminate much of Defendants’ own cited evidence, including the 1989 article by Dr. Kobayashi (Def. Ex. 66) and the 1990 license between Ricoh and Synopsys (Def. Ex. 67). See, e.g., (Brothers Dec. Ex. 19, D.I. 177, April 26, 2004, Answer and Counterclaims of Defendant AMI Semiconductor, Inc. at 8). In addition, The Synopsys licenses specifically forbade Ricoh from reverse engineering the source code for the licensed products. See, e.g., Brothers Dec. Ex. 91 at 2SP 0708480 (prohibiting Ricoh to “decompile, disassemble, reverse engineer or attempt to reconstruct, identify or discover any source

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~~code, underlying ideas, underlying ideas, underlying user interface techniques or algorithms of the Licensed Product by any means whatever").]~~

69. Between 1990 and 1996, Ricoh entered into over 40 contracts with Synopsys for the licensing or support of the products-in-suit. ~~[Ricoh objection: legally irrelevant]. [Disputed. This "fact" is legally irrelevant as set forth for paragraph 68. In addition, the reference to "products in suit" is wrong, and the contracts were not all for the "Design Compiler products." In addition, if the assertion is meant to imply Ricoh knew or should have known that the ASIC Defendants were actually using the patented process to design and manufacture ASICs for sales in the United States, it is disputed, as Mr. Ishijima has testified to the contrary.]~~

70. The co-owner of the asserted patent, KBSC, also took a licensed certain software tools from Synopsys in July of 1993, and renewed that license in 1995. Ex. 69 at SP00001-SP00032.

70a. KBSC was contractually prohibited from reverse engineering or investigating the inner workings of the licensed software tools. ~~[Defendant objection: legally irrelevant]~~

71. As licensees, both Ricoh and KBSC received product manuals describing the use and functionality of the tools comprising the Design Compiler system. ~~[Disputed. For Ricoh, this "fact" is legally irrelevant as set forth in paragraphs 68 and 69. In addition, the statement is overbroad for the Ricoh manuals, and the characterization is incomplete and misleading. For KBSC, there is no record evidence of any KBSC manuals, or when those manuals were received by KBSC. In addition, Synopsys restricted the use of the manuals and has marked them as Confidential. There is no evidence to assume that any manuals (1) contained sufficient disclosure to make it reasonable to conclude that KBSC (or Ricoh) knew or should have known Design Compiler involved those other steps of the patented process (none of the three technical experts engaged by defendants have provided any report to support this) and (2) that they were received more than six years before the filing of this action.]~~

71a. As a licensee, Ricoh received product manuals describing the use and functionality of the tools comprising the Design Compiler system. ~~[Ricoh objection: legally irrelevant; not plead]~~

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1 71b. As a licensee, KBSC received product manuals describing the use and functionality of
2 the tools comprising the Design Compiler system. [Ricoch objection: legally irrelevant]

3 72. In January of 1990, Synopsys' HDL Compiler won the *Electronic Products*
4 magazine's product of the year award. Ex. 71. [Ricoch objection: legally irrelevant; not plead]
5 ~~[Disputed. This is legally irrelevant as it is pre-1991 activity that is outside the scope of Defendants'~~
6 ~~pleadings, as set forth above.]~~

7 73. By 1997, Synopsys had an over 80% share of the logic synthesis tool market.
8 ~~[Disputed. There is no record evidence to support this statement. Also, when in 1997?]~~

9 74. In 1990, Electronic Engineering Times reported on Matrox Electronics' use of
10 Synopsys' synthesis tools. Ex. 74. ~~[Disputed. This is legally irrelevant as it is pre-1991 activity that~~
11 ~~is outside the scope of Defendants' pleadings, as set forth above. Also, there is no disclosure of~~
12 ~~where this activity supposedly was taking place; in Ricoch's opposition, we say it (at least) implies in~~
13 ~~Canada; there is no evidence that Ricoch knew or had reason to know Matrox was doing anything in~~
14 ~~the United States prior to 2000 or 2001.]~~ [Ricoch objection: legally irrelevant]

15 75. In 1991, Electronic News reported on AMI's development of cell libraries for use with
16 Synopsys' Design Compiler product. Ex. 75. ~~[Disputed—this is irrelevant because it is outside the~~
17 ~~scope of their pleadings—AMI's activity is irrelevant except with respect to their licensing of Design~~
18 ~~Compiler. The only reference to Defendants' activity in the pleadings is "63. [Defendant] purchased~~
19 ~~the Design Compiler software from Synopsys." See, e.g., (Brothers Dec. Ex. 19, D.I. 177, April 26,~~
20 ~~2004, Answer and Counterclaims of Defendant AMI Semiconductor, Inc. at 8. Also, Def. Ex. 75 is a~~
21 ~~1991 report that AMI was trying to develop a product without any forecast about when, if ever, it~~
22 ~~would be used; Def. Ex. 77 indicates AMI failed to have any product until some unknown time in~~
23 ~~1996 and even then does not contain any indication that AMI's entry at that time had any relationship~~
24 ~~to DC.]~~ [Ricoch objection: legally irrelevant]

25 76. In 1996, the AMI website disclosed that "AMI Design Kits support EDA tools from
26 vendors such as Synopsys." Ex. 78. ~~[Disputed as set forth in ¶75. Also, Def. Ex. 78 is undated, not~~
27 ~~authenticated, and states that AMI's products "support EDA tools from vendors such as Synopsys".~~
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~~but does not even say that AMI was actually using Synopsys tools (or which of the Synopsys tools) alone or in combination with its own products.] [Ricoh objection: legally irrelevant]~~

77. In 1996, the Aeroflex website (at the time under the company's former name, UTMC) contained a November 28, 1995 press release in which UTMC announced the introduction of its VHDL design kits to enhance customers' VHDL-based ASIC designs and systems. Ex. 79.

~~[Disputed as set forth in ¶75. Also, Ex. 79 is prospective only (we are going to introduce next year), and does not suggest this had anything to do w/DC or say what Aeroflex was doing.] [Ricoh objection: legally irrelevant]~~

78. The Synopsys website from 1997 contains a list of Synopsys Semiconductor Vendor Program participants, including AMI and UTMC (Aeroflex), who had developed strategic relationships with Synopsys to take full advantage of ASIC technology advancements. Ex. 80.

~~[Disputed as set forth in ¶75. Also, it is not clear from the website whether the information was available more than six years prior to suit. Ex. 80 says Aeroflex and AMI are companies which offered libraries for use with Synopsys products. It does not provide a basis for speculating, much less having reason to know, whether either company was using any Synopsys product in the U.S. so as to infringe the patent in suit.] [Ricoh objection: legally irrelevant]~~

Statement of Undisputed Facts for Summary Judgment No. 9

79. Ricoh has represented that it will not claim enhanced damages due to willfulness.

Statement of Undisputed Facts for Ricoh's Summary Judgment Motion

1. The Sixth Affirmative Defense of Aeroflex is "Authorization and Consent," which is based on 28 U.S.C. § 1498 (the "affirmative defense").

2. In the documents produced relating to Aeroflex's Sixth Affirmative Defense, there are no U.S. Government prime contracts with provisions expressly requiring use of Synopsys Design Compiler.

3. In the documents produced relating to Aeroflex's Sixth Affirmative Defense, there are no U.S. Government subcontracts that contain language on their face that expressly requires Aeroflex to use Synopsys' Design Compiler.

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1 80. Aeroflex does not contend that sales of the following products received authorization
2 and consent: UTCAM-Engine, JW01, KD08A, KD11A, JF01A/B, YA04/YA13, YB01, DA01,
3 DA02, JW02, and KC01A.
4

5
6
7 4. Aeroflex made no argument in their Opposition for eleven accused ASICs (#1
8 (UTCAM-Engine/UT100CE 02 JAA), #2 (JW01), #3 (KD08A), #10 (KD11A), #24 (JF01A/B), #25
9 (KC01A), #26 (YA04/YA13), #27 (YB01), #28 (DA01), #29 (DA02), and #30 (JW02)). Aeroflex is
10 not asserting authorization and consent for these eleven ASICs.

11 [Objection: Irrelevant. Ricoh moved on entire affirmative defense]
12

13 5. The only prime contract presented in the Aeroflex Opposition that contains Alternate I
14 to FAR § 52.227-1 is U.S. Air Force contract no. F04701-99-C-0027 dated August 23, 1999. This
15 contract has not been produced by Aeroflex in its entirety.

16 6. Synopsys Design Compiler is a commercial product used by multiple
17 customers of Synopsys, including Aeroflex. [[Objection: Misleading, irrelevant]]

18 7. The design flow and manufacturing steps used by Aeroflex to create the ASICs that
19 are the subject of the Sixth affirmative defense are substantially similar to the design flow and
20 manufacturing steps used by Aeroflex to create ASICs that are sold to commercial (e.g., non-
21 government contract) customers. [[Objection: Misleading, irrelevant]]

22 8. Aeroflex currently offers for sale to the general public, via its website
23 (www.aeroflex.com), "the UT0.06um ASIC Family," also referred to as the "0.6 micron Gate Array
24 Family," which refers to a large variety of ASICs sold to commercial and Government customers.
25 [[Objection: Irrelevant, misleading]]

26 9. All of the ASICs for which Aeroflex is asserting the authorization and consent defense
27 are in the "0.6 micron Gate Array Family." [[Objection: Irrelevant, misleading]]
28

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10. Since at least 1997, Aeroflex has offered to sell commercial, custom and “semi-custom” ASICs to the general public, tailored to the requests of individual customers. [[Objection: Irrelevant, misleading]]

82. The Aeroflex Defendants could have used alternatives that Ricoh has not accused of infringement, such as tools by Cadence Design Systems, Inc. and Mentor Graphics Corp., to synthesize their ASICs.

83. The end customer (ASIC consumer) requires the functionality of the ASIC, rather than a specific design flow or the use of particular tools.

Dated: September 12, 2006

HOWREY LLP

By: /s/

Denise M. De Mory

Attorney for Plaintiff SYNOPSYS, INC.

and Defendants AEROFLEX

INCORPORATED, AMI

SEMICONDUCTOR, INC., MATROX

ELECTRONIC SYSTEMS, LTD.,

MATROX GRAPHICS INC., MATROX

INTERNATIONAL CORP., MATROX

TECH, INC., and AEROFLEX

COLORADO SPRINGS, INC.

Dated: September 12, 2006

DICKSTEIN SHAPIRO LLP

By: /s/DRAFT

Kenneth W. Brothers

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Attorney for Plaintiff RICOH COMPANY,
LTD.

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Exhibit 4

Andelman, Ethan

From: Brothers, Kenneth [BrothersK@dicksteinshapiro.com]
Sent: Tuesday, September 12, 2006 10:26 PM
To: DeMory, Denise
Cc: Fink, Jacky; Andelman, Ethan
Subject: Revised version of proposed joint statement
Attachments: DSMDB-#2142304-v3-joint_statement_of_facts_draft.DOC

Denise:

I have tried very hard to turn around your extensive edits and new language that was sent after 11 pm ET. Enclosed is what I have been able to do so far. I took what you sent me at 11:08 pm ET, accepted all of the redlining, so everything now redlined is newly added to your 11:08 version. I have not been able to look at many of the new references that you just cited after 11 pm. In addition, I have the feeling that I gave you some prior comments that were not incorporated into your draft, and I have not had the time to go back and carefully cross-check everything. I trust you will look at those emails that I have sent to you, but I reserve the right to review this tomorrow and submit an errata if necessary.

To be clear, if we state that we dispute a fact, then we do not agree to it being included in this joint statement. If in doubt, leave it out. I understand that you will finalize consistent with our agreements and file with the court.

I am going to bed now and will not be available to do any more review work on this.

Regards, Ken

<<DSMDB-#2142304-v3-joint_statement_of_facts_draft.DOC>>

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9/25/2006

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

RICOH COMPANY, LTD.,

Case No. C03-04669 MJJ (EMC)

Plaintiff,

Case No. C03-02289 MJJ (EMC)

vs.

**JOINT STATEMENT OF UNDISPUTED
FACTS RE PENDING MOTIONS FOR
SUMMARY JUDGMENT**

AEROFLEX INCORPORATED, AMI
SEMICONDUCTOR, INC., MATROX
ELECTRONIC SYSTEMS LTD., MATROX
GRAPHICS INC., MATROX
INTERNATIONAL CORP., MATROX TECH,
INC., AND AEROFLEX COLORADO
SPRINGS, INC.

Date: September 26, 2006
Time: 9:30 a.m.
Courtroom: 11, 19th Floor
Judge: Martin J. Jenkins

Defendants.

SYNOPSYS, INC.,

Plaintiff,

vs.

RICOH COMPANY, LTD.,

Defendant.

Case Nos. C03-4669 MJJ (EMC) and C03-2289 MJJ (EMC)
STATEMENT OF UNDISPUTED FACTS

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This Joint Statement of Facts is proposed in accordance with Local Rule 56-2(b) and the Standing Order of the Honorable Martin J. Jenkins.

Statement of Undisputed Facts for Summary Judgment No. 1

~~[Awaiting comments from Ricoh; Defendant/Synopsys provided Soderman deposition cites to which Ricoh has not yet responded].~~

1. The Defendants' accused designs specify inputs.
2. The Defendants' accused designs specify outputs.
3. ~~The Defendants' accused designs may or may not specify registers.~~ [Disputed. We still don't agree that Soderman's testimony supports this assertion. Inferring registers is not Darringer, as we explain in our papers. This is a disputed fact.]
4. [Disputed; this sentence is incomprehensible. To the extent we understand it, there is no record evidence to support it.] [We have reviewed Soderman's testimony, and it does not support the proposed language. For example, in the cite you provided, Soderman does not testify to logic functionality "between register locations"; and his earlier testimony re inferring registers has to be considered, and is evidence that this is not an undisputed fact.]

Statement of Undisputed Facts for Summary Judgment No. 2

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Statement of Undisputed Facts for Summary Judgment No. 3

[We are at an impasse regarding facts 12-16, 19; they will go in Rule 56 declaration]

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Case Nos. C03-4669 MJJ (EMC) and C03-2289 MJJ (EMC)
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11. Dr. Kobayashi was Simon Foo's advisor for his master's thesis, attached as Exhibit 66 to the Brothers Declaration [This is an incomplete and misleading characterization.]

13. Dr. Kobayashi and Simon Foo co-authored two papers that had copyright dates in 1986.

17. ~~Both the Foo Thesis and the FAME paper discuss storing representations of functional modules in a frame-based database. [Disputed. This does not fairly characterize the two papers.]~~

18. ~~As described in "A Knowledge Based System for VLSI module selection," the VLSI modules that are selected by the NEPTUNE system are selected using rules stored in an expert system knowledge base. Brothers Decl., Ex. 68, at 184 ("This paper introduces a frame-based system for selecting VLSI modules, called NEPTUNE. Based on domain specific knowledge and heuristic rules, NEPTUNE assists IC designers to select an optimized solution, and explore different implementation alternatives.") [Disputed for the reason set forth in my email of 9:49 pm: "On 18, you are overreaching. Neptune does not say that rules are stored in an expert system knowledge base."]~~

19.

Statement of Undisputed Facts for Summary Judgment No. 4

20.

20a. An article written by T.J. Kowalski, D.J. Geiger, W.H. Wolf, and W. Fichtner entitled "The VLSI Design Automation Assistant: From Algorithms to Silicon" is listed in the table of contents of the August 1985 issue of *IEEE Design and Test of Computers Magazine* as appearing at pp. 33-43. This article is referred to by the parties as "Kowalski85."

20b. ~~Kowalski85 was published in a publication with a date of in August 1985.~~

20c. *IEEE Design and Test of Computers Magazine* is a periodical.

20d. ~~*IEEE Design and Test of Computers Magazine* is a periodical which is publicly available from at least one library. [Disputed. No record evidence to support it. Oka's testimony referred to a private library in Japan.]~~

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20e. ~~The August 1985 issue of *IEEE Design and Test of Computers Magazine* is publicly available from at least one library. [Disputed for the same reason.]~~

20f. ~~The August 1985 issue of *IEEE Design and Test of Computers Magazine* was publicly available from at least one library prior to January 13, 1987. [Disputed for the same reason.]~~

21. 21a. Thaddeus Julius Kowalski authored a thesis at Carnegie Mellon University entitled "The VLSI design automation assistant: a knowledge-based expert system." This thesis is referred to by the parties as "Kowalski Thesis" or "Kowalski84."

21b. The Carnegie Mellon University online card catalog lists a publication date of 1984 for the Kowalski Thesis. (De Mory Ex. 101.)

21c. The Kowalski Thesis contains an indication that it is designated as SRC Report CMU-CAD-84-29. Brothers Decl., Ex. 82 at cover page. [Disputed. The late addition of this citation (after 11 pm ET on the day this joint statement is due) has prevented us from further reviewing it.]

21d. The work on the Kowalski Thesis was financed in part by the National Science Foundation. Brothers Decl., Ex. 82 at Acknowledgements. [Disputed. The late addition of this citation (after 11 pm ET on the day this joint statement is due) has prevented us from further reviewing it.]

21e. The Kowalski Thesis contains a limited distribution notice stating that the thesis has been, or will be, submitted for publication, has been issued as a Research Report for dissemination of its contents, and because of potential transfer of copyright to the publisher, distribution outside CMU is limited to peers and specific requests until publication. *Id.* [Disputed. This is so vague that it is meaningless. In addition, the late addition of this citation (after 11 pm ET on the day this joint statement is due) has prevented us from further reviewing it.]

22a. ~~Kowalski85 and the Kowalski Thesis describe versions of the same program, which is entitled VLSI Design Automation Assistant. Kowalski Depo. at 9:14-17 & 13:5-12; Kowalski85 at Note 8 (citation to Kowalski Thesis). [Disputed. This is misleading. The programs and the~~

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descriptions were not the same, and to refer to both by the same name or acronym is misleading. It's also inconsistent with #37.]

22b. ~~The parties refer to the VLSI Design Automation Assistant as "VDAA."~~ [Disputed for the same reasons.]

23. 23a. Dr. Kowalski provided deposition testimony in this case on May 23, 2006, pursuant to a subpoena served by Ricoh.

23b. Dr. Kowalski provided deposition testimony on the VDAA program, Kowalski85, and the Kowalski Thesis, among other topics, in response to questions posed by Ricoh's attorneys. [Disputed. The reference to VDAA is misleading, and the rest is so general to be meaningless.]

24.

24a. The VDAA system inputs an algorithmic description in a programming language known as "ISP." [sic] The VDAA system transforms the algorithmic description into a network of functional modules (e.g., registers, adders, multiplexers) using expert knowledge. See Soderman Rebuttal Report at 19:2-7. [Disputed. The reference to VDAA is misleading. The late addition of this citation (after 11 pm ET on the day this joint statement is due) has prevented us from further reviewing it.]

[Facts 25-27 are supported by the citations to evidence contained in Exhibits A and B to our Motion; you did not dispute any of these facts. If you will not agree to them as written, we will put them in our Rule 56 declaration]25. [See Kowalski Depo. at 106:7-13] [Disputed: Whether "hardware cells" were bound into a "netlist" is another key issue in dispute.] [They remain disputed]

29. ~~[See Kowalski Depo. at 83:5-24.]~~ At deposition, Dr. Kowalski testified (without corroboration) that the "technology sensitive" database in Kowalski85 contained technology-independent "cell descriptions," where he defined that term stating: "It varied. It could be as low as a single an gate or as high and complicated as an ALU. So it is a broad list of possible things." [Disputed as originally written. Kowalski never testified that Kowalski85 itself disclosed this usage, or even that any "refinement" of the work included AND gates.]

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30a. Dr. Kowalski was affiliated with AT&T Bell Laboratories. Kowalski85, title line.

30b. Dr. Kowalski refined the VDAA program while at AT&T. Kowalski Depo. 14:4-6; 77:16-20; 78:15-79:19; 94:20-99:17; 104:8-21; 118:7-119:12; 130:6-131:3. [Disputed. The reference to VDAA is misleading. We dispute any facts regarding the "refinement" work done by Kowalski where the only evidence provided is his own oral testimony (we objected to such evidence in our Opposition. The late addition of this citation (after 11 pm ET on the day this joint statement is due) has prevented us from further reviewing it.]

30c. One of these refinements to VDAA was to eliminate the need for a separate module binder process. *Id.*; *see also* Kowalski Depo. Ex. 463. [Disputed. The reference to VDAA is misleading. We dispute any facts regarding the "refinement" work done by Kowalski where the only evidence provided is his own oral testimony (we objected to such evidence in our Opposition. The late addition of this citation (after 11 pm ET on the day this joint statement is due) has prevented us from further reviewing it.]

30d. Under this refinement, the VDAA program itself selected and bound hardware cell, and created a netlist, without the need for a separate module binder. *Id.*; *see also* Kowalski Depo. Ex. 463. [Disputed. The reference to VDAA is misleading. We dispute any facts regarding the "refinement" work done by Kowalski where the only evidence provided is his own oral testimony (we objected to such evidence in our Opposition. The late addition of this citation (after 11 pm ET on the day this joint statement is due) has prevented us from further reviewing it.]

Statement of Undisputed Facts for Summary Judgment No. 5

31. On February 24, 2006, the PTO ordered reexamination of the '432 patent based on a request "that '432 patent claims 13-17 are anticipated under 35 U.S.C. sect. 102 in light of the following references: T.J. KOWALSKI, D.J. Geiger, W.H. Wolf, W. Fichtner, The VLSI Design Automation Assistant: From Algorithms to Silicon, IEEE Design & Test, pp. 33-43 (1985). (i.e., "KOWALSKI-85") [and] Thaddeus Julius KOWALSKI, The VLSI Design Automation Assistant: A

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1 Knowledge-Based Expert System, Carnegie-Mellon University PhD Thesis, April 1984. (i.e.,
2 “KOWALSKI-84”).

3 32. The February 24, 2006 PTO order granting reexamination of the ‘432 patent stated that
4 “the Kowalski-85 reference (including the inherent teachings of Kowalski84) would have been
5 considered important by a reasonable Examiner in deciding whether or not at least claim 13 was
6 patentable....”

7 33. The February 24, 2006 PTO order granting reexamination of the ‘432 patent stated that
8 “Kowalski-85 and Kowalski-84 references were not of record in the file of the ’432 patent and are not
9 cumulative to the art of record in the original file.”

10 35. The named ‘432 patent inventors, Dr. Kobayashi and Mr. Shindo, co-authored with
11 Mr. Suehiro and published “KBSC: A Knowledge-Based Approach to Automated Logic Synthesis”
12 (1989 KBSC Article) in 1989. According to the cover page footer of the article, the manuscript for
13 the 1989 KBSC Article was submitted in November 1988 and revised for publication in February
14 1989. The ‘432 patent Notice of Allowability was mailed on November 29, 1989, and the ‘432 patent
15 issued on May 1, 1990

16 36. KBSC00002884 is a letter in Japanese dated November 27, 1987 from Mr. Shindo to
17 Dr. Kobayashi. A translation of the letter is at Exhibit 93. The letter states that it is “[r]egarding the
18 joint patent application by ICC and Ricoh.” The letter further states that “[i]n order to file the patent
19 application, we will need to have a meeting with a US patent agent regarding the preparation of a US
20 patent specification.” The agenda for the meeting included the “[c]ompletion of patent specification.”
21 The meeting was scheduled for December 8-9, 1987 at ICC Columbia and included among the
22 participants Dr. Kobayashi, Mr. Shindo, and Mr. Suehiro.

23 36B. Mr. Suehiro was an attendee at the December 8-9, 1987 meeting relating to what
24 became the application for the ‘432 patent.

25 37. Kowalski85 describes a system called the VLSI Design Automation Assistant
26 (VDAA).

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28 Case Nos. C03-4669 MJJ (EMC) and C03-2289 MJJ (EMC)
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1 38. [Will go in Rule 56 Declaration]

2 39. [Will go in Rule 56 Declaration]

3 40. [Will go in Rule 56 Declaration]

4 41. [Will go in Rule 56 Declaration as written; will include agreed fact]. The August 1986
5 table of Contents from the *IEEE Design and Test of Computers Magazine* does not show a Kowalski
6 article in that issue.

7 41A. The August 1985 table of Contents from the *IEEE Design and Test of Computers*
8 *Magazine* does show a Kowalski article in that issue cited as "T.J. Kowalski, D.J. Geiger, W.H. Wolf,
9 W. Fichtner, The VLSI Design Automation Assistant: From Algorithms to Silicon, *IEEE Design &*
10 *Test*, pp. 33-43 (1985)."

11 42. Kowalski85 is not listed on the cover page of the '432 patent as a reference that was
12 considered by the patent examiner, and a physical copy of Kowalski85 is not included in the '432
13 prosecution file history.

14 43. During the prosecution of the '432 patent, the Applicants supplied to the PTO an
15 article entitled "FLAMEL: A High-Level Hardware Compiler" by Trickey. On the first page of the
16 Trickey article, it states that "Some examples of compilers that operate this way are: the CMU-DA
17 project [1], particularly the Design Automation Assistant [2], [3] portion; Arsenic [4]; the USC
18 Design Automation project [5]; the AT&T Bell Labs VLSI Design Automation Assistant [6]; and SC
19 [7]." Reference [6] is Kowalski85, and the Trickey paper provides a full citation to Kowalski85.
20 ~~Kowalski85 is not referenced again in the Trickey paper. [This last sentence is misleading, because~~
21 ~~the full reference appears at the very end. It's just an argumentative characterization – leave it out.]~~

22 **Statement of Undisputed Facts for Summary Judgment No. 6**

23 44.

24 44a. 231 of the over 350 ASICs at issue in this case are AMI Semiconductor, Inc. ASICs
25 for which the only logic synthesis performed by AMI Semiconductor, Inc. using the Design Compiler
26 system was the creation of a BIST (Built In Self Test) memory controller. These 231 ASICS are

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28 Case Nos. C03-4669 MJJ (EMC) and C03-2289 MJJ (EMC)
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1 listed in the June 1, 2006 Corrected Third Supplemental Product Declaration of Robert B. Smith of
 2 AMI. [Disputed. Neither Cliff Warren nor Robert Smith could testify to details of the BISTs and in
 3 the absence of fact testimony we are not going to accept the uncorroborated assertions of an expert,
 4 especially when the introduction of such evidence is precluded due to the lack of knowledge of the
 5 30(b)(6) designees. Plus, the late addition of this citation (after 11 pm ET on the day this joint
 6 statement is due) has prevented us from further reviewing it.]

8 44b. A BIST is not an ASIC, but merely a portion of an ASIC whose only purpose is to
 9 allow testing of a memory device on the chip prior to shipment to the customer. [Disputed for the
 10 same reasons.]

12 44c. Of the over 350 ASICs at issue, at least the following Aeroflex, Inc. and Aeroflex
 13 Colorado Springs, Inc. ASICs are mixed-signal ASICs: JW01, YA04/YA13, YB01, DA01, DA02,
 14 JW02. [Disputed for the same reasons.]

16 44d. Of the over 350 ASICs at issue, at least the following Matrox Electronic Systems Ltd.,
 17 Matrox Graphics, Inc., Matrox International Corp., and Matrox Tech, Inc. ASICs are mixed-signal
 18 ASICs: Cyclone, Eclipse, Eclipse PCI, Calao, Toucan, Condor, Condor Plus, Parhelia, Sundog,
 19 Parhelia8x, Sunex, Maven, Rainbow Runner, Twister. [Disputed. The late addition of this citation
 20 (after 11 pm ET on the day this joint statement is due) has prevented us from further reviewing it.]

22 44e. Of the over 350 ASICs at issue, at least the following AMI Semiconductor, Inc. ASICs
 23 are mixed-signal ASICs: 11241-801, 802, 803; 0QJBW-001, 002, 900, 901, 902, 903, 904, 905, 906;
 24 11636-501; 14167-001; 14948-501, 502, 503; 15088-501; 15124-501, 502; 19007-001; 19075-001,
 25 002, 003; 19320-001; 19371-001; 19402-001; 0JGBE-001, 002, 900, 901, 902; 19293-001, 002, 004;
 26 19070-001, 002; 19134-001; 0MNTA-900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911,
 27 912, 913, 914; 13855-501; 15078-001, 002; 19219-001, 002, 003; 19299-001; 19409-001, 002, 003;

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1 19428-001; 19429-001, 002, 003; 19529-001; 19558-002; 19608-001; 19645-001; 19664-002; 19693-
 2 001, 002; 0AFCEB-002; D1AFCC; 0APSE-002; 0C621-003; 0C622-003; D1CORC; D1CORD;
 3 0HISB-001; 0IEBA-002; D1SEBA. [Disputed. The late addition of this citation (after 11 pm ET on
 4 the day this joint statement is due) has prevented us from further reviewing it.]

5
 6 44f. For all ASIC designs, the Design Compiler system cannot be used to design certain
 7 portions of the ASIC such as instantiated pad cells, asynchronous logic, and hand instantiated logic.
 8 (Casavant Decl., ¶ 10; Brothers Decl., Ex. 27 (Casavant report) at 7). [Disputed for the reasons
 9 previously stated. We are not going to agree to this as an absolute. There is no evidence that these
 10 functions must be in an ASIC.]

11
 12
 13 45.

14 46. [Will go in Rule 56 declaration as written; will include the following and propose
 15 56b]. ~~Ricoh accuses in this litigation processes in which the Design Compiler system is used to~~
 16 ~~design digital portions of ASICs.~~

17 46a. Design Compiler cannot be used to synthesize analog portions of an ASIC.

18 47. [Will go in Rule 56 Declaration].

19 48. [Will go in Rule 56 Declaration].

20 49. The Corrected Third Supplemental Product Declaration of Robert B. Smith of AMI
 21 dated June 1, 2006 declares that for 231 of the AMI designs that Ricoh accuses of infringement, AMI
 22 used the Design Compiler system to design a portion of the ASIC known as "BIST" or "Built-In Self
 23 Test." These AMI designs are listed in Exhibit 2 to the August 18, 2006 Declaration of Albert E.
 24 Casavant in Support of Synopsys and the Defendants' Motions for Summary Judgment. [Disputed
 25 for the reasons set forth in 44.]

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55. [Will go in Rule 56 Declaration]

56. [Will go in Rule 56 Declaration].

Statement of Undisputed Facts for Summary Judgment No. 7

57. There is no evidence that customers purchase the accused Matrox graphics boards because Design Compiler is used as part of the design process. [Disputed. Customers purchase Matrox graphics boards because of the advantages Design Compiler provides (which the customers appreciate) even if they do not know that Design Compiler is specifically used in as part of the design process. The statement still misinterprets the applicable law]

58. There is no evidence that customers purchase the accused Defendant ASICs because Design Compiler is used as part of the design process. [Disputed. Customers purchase the accused ASICs because of the advantages Design Compiler provides (which the customers appreciate) even if they do not know that Design Compiler is specifically used in as part of the design process. The statement still misinterprets the applicable law]

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60.

62a. There is no evidence that any infringing activity for the Matrox Maven product took place in the United States. [Disputed. These are conclusions of law, not statements of fact. Defendants' stipulation that Maven is a commercial ASIC is an admission that the ASIC was synthesized in the United States during the damages period. Ricoh's inference with respect to U.S. sales of Maven is reasonable because Defendants stipulated that their financial data on foreign synthesized commercial ASICs would only include US sales. Defendants never informed Ricoh that they had provided non-US sales for their other foreign ASICs. Ricoh's expert therefore relied on the stipulation for all foreign synthesized ASICs. The existence of foreign shipping addresses is not dispositive of where the sale took place. Because the shipping data was in a separate spreadsheet that used different names for the same ASICs and boards and that did not match up well with their sales data, such data is ambiguous.]

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63. If there was no infringing activity in the United States for the Matrox Calao; Condor; CondorPlus; Cyclone; Eclipse; Sunex; Toucan; SIB; and Oasis products, then foreign sales of the products should be excluded from the royalty base. [Disputed. These are conclusions of law, not statements of fact]

63a. If there was no infringing activity in the United States for the Matrox Maven product, then foreign sales of the Maven product should be excluded from the royalty base. [Disputed. These are conclusions of law, not statements of fact]

Statement of Undisputed Facts for Summary Judgment No. 8

64. Ricoh initiated this infringement suit against the Defendants on January 21, 2003, alleging infringement of the '432 patent based on the Defendants' sale of application specific integrated circuits ("ASICs") that were designed by the Defendants using a process that among other things included the use of Synopsys' Design Compiler system, which includes Design Compiler, HDL Compiler for Verilog, VHDL Compiler, and the DesignWare libraries ("the Design Compiler system").

66. For the describing step of claim 13, Ricoh contends the limitation is met when, at least "the ASIC Designer entered a written description of the desired functions of the ASIC Product into HDL Compiler."

67. ~~[We are still considering this language]~~ Ricoh alleges that the Verilog and VHDL ASIC designs that include HDL operators, including, for example +, *, -, /, >, < and "if," "case," and "wait" statements, comprise "architecture independent actions and conditions," as used in a certain way, which, when input by the Defendants into the Synopsys products in suit, fulfill the describing step and thus infringe the '432 patent. [If you do not accept this language, then we dispute it.]

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1 67a. Ricoh had no more information about the alleged architecture independent nature of
 2 the Defendants' Verilog and VHDL ASIC inputs when it initiated this suit than it had before January
 3 21, 1997. [Disputed, as set forth in the Ishijima testimony. Also, the late addition of this prevents us
 4 from further considering this assertion.]

5 68. On October 22, 1990, Ricoh licensed the Design Compiler and HDL Compiler for
 6 Verilog from Synopsys. [Rico objections: legally irrelevant; not plead].

7 68a. The Synopsys licenses specifically forbade Ricoh from reverse engineering the source
 8 code for the licensed products. [Defendant objection: legally irrelevant]

9 68b. Ricoh had not reverse engineered ~~the any~~ licensed Synopsys software prior to the time it
 10 filed the lawsuit against Defendants or anytime thereafter.

11
 12 69. Between 1990 and 1996, Ricoh entered into over 40 contracts with Synopsys for the
 13 licensing or support of the products-in-suit. [Disputed: This is not supported by the evidence. The
 14 contracts have not been put into evidence, and there is no other evidence on this point.] [Rico
 15 objection: legally irrelevant].

16 [70. The co-owner of the asserted patent, KBSC, licensed certain software tools from
 17 Synopsys in July of 1993, and renewed that license in 1995. Ex. 69 at SP00001-SP00032.

18 70a. KBSC was contractually prohibited from reverse engineering or investigating the inner
 19 workings of the licensed software tools. [Defendant objection: legally irrelevant]

20 71. 71a. As a licensee, Ricoh received product manuals describing the use and
 21 functionality of the tools comprising the Design Compiler system. [Disputed: This is overbroad.
 22 There is record evidence of only one manuals, no evidence of when they were received, or their
 23 contents.] [Rico objection: legally irrelevant; not plead]

24 71b. As a licensee, KBSC received product manuals describing the use and functionality of
 25 the tools comprising the Design Compiler system. [Disputed: There is no record evidence of any
 26 KBSC manuals, or when they were received, or their contents.] [Rico objection: legally irrelevant]

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72. In January of 1990, Synopsys' HDL Compiler won the *Electronic Products* magazine's product of the year award. Ex. 71[Ricoh objection: legally irrelevant; not plead]

74. In 1990, Electronic Engineering Times reported on Matrox Electronics' use of Synopsys' synthesis tools. Ex. 74. [Ricoh objection: legally irrelevant]

75. In 1991, Electronic News reported on AMI's development of cell libraries for use with Synopsys' Design Compiler product. Ex. 75. [Ricoh objection: legally irrelevant]

76. In 1996, the AMI website disclosed that "AMI Design Kits support EDA tools from vendors such as Synopsys." Ex. 78. [Ricoh objection: inadmissible; website is unverifiable; legally irrelevant]

77. In 1996, the Aeroflex website (at the time under the company's former name, UTMC) contained a November 28, 1995 press release in which UTMC announced the introduction of its VHDL design kits to enhance customers' VHDL-based ASIC designs and systems. Ex. 79. [Ricoh objection: inadmissible; website is unverifiable; legally irrelevant]

78. The Synopsys website from 1997 contains a list of Synopsys Semiconductor Vendor Program participants, including AMI and UTMC (Aeroflex), who had developed strategic relationships with Synopsys to take full advantage of ASIC technology advancements. Ex. 80. [Ricoh objection: inadmissible; website is unverifiable; legally irrelevant]

Statement of Undisputed Facts for Summary Judgment No. 9

79. Ricoh has represented that it will not claim enhanced damages due to willfulness.

Statement of Undisputed Facts for Ricoh's Summary Judgment Motion

DENISE: WE ASSUME YOU WILL FIX THE NUMBERING

1. The Sixth Affirmative Defense of Aeroflex is "Authorization and Consent," which is based on 28 U.S.C. § 1498 (the "affirmative defense").

2. In the documents produced relating to Aeroflex's Sixth Affirmative Defense, there are no U.S. Government prime contracts with provisions expressly requiring use of Synopsys Design Compiler.

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3. In the documents produced relating to Aeroflex's Sixth Affirmative Defense, there are no U.S. Government subcontracts that contain language on their face that expressly requires Aeroflex to use Synopsys' Design Compiler.

80. Aeroflex does not contend that sales of the following products received authorization and consent: UTCAM-Engine, JW01, KD08A, KD11A, JF01A/B, YA04/YA13, YB01, DA01, DA02, JW02, and KC01A.

4. Aeroflex made no argument in their Opposition for eleven accused ASICs (#1 (UTCAM-Engine/UT100CE 02 JAA), #2 (JW01), #3 (KD08A), #10 (KD11A), #24 (JF01A/B), #25 (KC01A), #26 (YA04/YA13), #27 (YB01), #28 (DA01), #29 (DA02), and #30 (JW02)). Aeroflex is not asserting authorization and consent for these eleven ASICs.

[Objection: Irrelevant. Ricoh moved on entire affirmative defense]

5. The only prime contract presented in the Aeroflex Opposition that contains Alternate I to FAR § 52.227-1 is U.S. Air Force contract no. F04701-99-C-0027 dated August 23, 1999. This contract has not been produced by Aeroflex in its entirety.

6. Synopsys Design Compiler is a commercial product used by multiple customers of Synopsys, including Aeroflex. [[Objection: Misleading, irrelevant]]

7. The design flow and manufacturing steps used by Aeroflex to create the ASICs that are the subject of the Sixth affirmative defense are substantially similar to the design flow and manufacturing steps used by Aeroflex to create ASICs that are sold to commercial (e.g., non-government contract) customers. [[Objection: Misleading, irrelevant]]

8. Aeroflex currently offers for sale to the general public, via its website (www.aeroflex.com), "the UT0.06um ASIC Family," also referred to as the "0.6 micron Gate Array

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1 Family,” which refers to a large variety of ASICs sold to commercial and Government customers.

2 [[Objection: Irrelevant, misleading]]

3 9. All of the ASICs for which Aeroflex is asserting the authorization and consent defense
4 are in the “0.6 micron Gate Array Family.” [[Objection: Irrelevant, misleading]]

5 10. Since at least 1997, Aeroflex has offered to sell commercial, custom and “semi-
6 custom” ASICs to the general public, tailored to the requests of individual customers. [[Objection:
7 Irrelevant, misleading]]

8 82. The Aeroflex Defendants could have used alternatives that Ricoh has not accused of
9 infringement, such as tools by Cadence Design Systems, Inc. and Mentor Graphics Corp., to
10 synthesize their ASICs.

11 83. The end customer (ASIC consumer) requires the functionality of the ASIC, rather than
12 a specific design flow or the use of particular tools.

13
14
15
16 Dated: September 12, 2006

HOWREY LLP

17
18 By: /s/

19
20 Denise M. De Mory

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Attorney for Plaintiff SYNOPSYS, INC.
and Defendants AEROFLEX
INCORPORATED, AMI
SEMICONDUCTOR, INC., MATROX
ELECTRONIC SYSTEMS, LTD.,
MATROX GRAPHICS INC., MATROX
INTERNATIONAL CORP., MATROX
TECH, INC., and AEROFLEX
COLORADO SPRINGS, INC.

Dated: September 12, 2006

DICKSTEIN SHAPIRO LLP

By: DRAFT

Kenneth W. Brothers

Attorney for Plaintiff RICOH COMPANY,
LTD.

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Exhibit 5

Andelman, Ethan

From: DeMory, Denise
Sent: Wednesday, September 13, 2006 12:00 AM
To: Brothers, Kenneth
Cc: Fink, Jacky; Andelman, Ethan
Subject: RE: Revised version of proposed joint statement

Ken:

I dispute your characterizations. You have known about all of the facts included in each version of our joint statement since August 18. You did not dispute the facts in your oppositions to our motions, and thus, they were appropriately included in joint statement. Moreover, to the extent that we included what you improperly characterize as "new facts" in the draft distributed this evening, they were either something that we specifically discussed, or they were to attempt to address your concerns, and thus, not new facts at all. You inserted specific comments regarding those facts that you disputed because it was allegedly too late for you to verify the facts. Please advise before 6 p.m. PST tomorrow whether or not you the facts to which you included your "11:00 p.m. objection" are agreeable to Ricoh. Also please explain why you could not agree to facts 1 and 2 as written which were verbatim from the Soderman transcript.

I did not re-review every e-mail that you sent today after receiving your revisions at 10:26, but did attempt to carefully include your comments on the draft I sent at approximately 8:00 p.m. I also tried to be conservative with regard to what I included in the joint statement, ; if I was not sure you agreed to something, I did not include it. If you have any concerns about what was filed, please let me know, so that we can understand and address your concerns prior to the time that an errata is filed.

Regards,

Denise

From: Brothers, Kenneth [mailto:BrothersK@dicksteinshapiro.com]
Sent: Tuesday, September 12, 2006 10:26 PM
To: DeMory, Denise
Cc: Fink, Jacky; Andelman, Ethan
Subject: Revised version of proposed joint statement

Denise:

I have tried very hard to turn around your extensive edits and new language that was sent after 11 pm ET. Enclosed is what I have been able to do so far. I took what you sent me at 11:08 pm ET, accepted all of the redlining, so everything now redlined is newly added to your 11:08 version. I have not been able to look at many of the new references that you just cited after 11 pm. In addition, I have the feeling that I gave you some prior comments that were not incorporated into your draft, and I have not had the time to go back and carefully cross-check everything. I trust you will look at those emails that I have sent to you, but I reserve the right to review this tomorrow and submit an errata if necessary.

To be clear, if we state that we dispute a fact, then we do not agree to it being included in this joint statement. If in doubt, leave it out. I understand that you will finalize consistent with our agreements and file with the court.

I am going to bed now and will not be available to do any more review work on this.

Regards, Ken

9/25/2006

<<DSMDB-#2142304-v3-joint_statement_of_facts_draft.DOC>>

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Exhibit 6

Andelman, Ethan

From: Brothers, Kenneth [BrothersK@dicksteinshapiro.com]
Sent: Tuesday, September 12, 2006 3:42 PM
To: DeMory, Denise
Cc: Andelman, Ethan; Fink, Jacky
Subject: RE: Draft comments on proposed statements of facts

Denise:

I have reviewed these cites. Generally, I think you are attempting to substitute attorney characterizations of evidence for the actual evidence, which as you have pointed out in your briefs is improper. We are not going to let you pick and choose from the statements in all our briefs and let you agree with some and dispute or not include others. For example, on paragraphs 12, 13, 14, 15 and 16, you do not include all our descriptions of the evidence.

That being said, we are willing to work in good faith with you on what the actual undisputed evidence shows. We have done so in our draft responses. Specifically, we have the following comments to your cites:

- 11 - our language is accurate
- 12 - your language is incomplete - we refer and describe to the thesis about 10 times; you have cherry-picked only one reference.
- 13 - same - we refer to FAME 8 times; you have cherry-picked 2 references.
- 14 - we have not modified your language, but to be fair and complete have insisted that you should include the undisputed fact that FAME is technology independent (at p. 14)
- 15 - same - we refer to Neptune 16 times, you have cherry-picked one reference.
- 16 - same - in particular, you ignore the rest of the paragraph.

Let me know whether we can agree on our proposed language, or whether we are at an impasse. As it stands, we do not agree that your proposed language should be in the joint submission. If you elect to submit a separate filing, please attach this document and advise the court of the basis of our objections.

Regards,

Ken Brothers
Dickstein Shapiro LLP

From: DeMory, Denise [mailto:demoryd@Howrey.com]
Sent: Tuesday, September 12, 2006 2:58 PM
To: Brothers, Kenneth
Cc: Andelman, Ethan; Fink, Jacky
Subject: RE: Draft comments on proposed statements of facts

Ken:

Regarding Motion 3, facts 11-16 were taken from your opposition.

- 11. See Opp. at 3:16-4:3.
- 12. See Opp. at 17:3-4.
- 13. See Opp. 4:4-5; 19-20..

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- 14. See Opp. 4:4-6.
- 15. See Opp. 4:19-22.
- 16. See Opp. 18:1-4.

Regards,

Denise

From: Brothers, Kenneth [mailto:BrothersK@dicksteinshapiro.com]
Sent: Tuesday, September 12, 2006 11:33 AM
To: DeMory, Denise
Cc: Andelman, Ethan; Fink, Jacky
Subject: RE: Draft comments on proposed statements of facts

ok

Ken Brothers
Dickstein Shapiro LLP

From: DeMory, Denise [mailto:demoryd@Howrey.com]
Sent: Tuesday, September 12, 2006 2:30 PM
To: Brothers, Kenneth
Cc: Andelman, Ethan; Fink, Jacky
Subject: RE: Draft comments on proposed statements of facts

Ken:

I am having some technical difficulty with the redines on your draft -- will have it to you shortly. I propose a call at noon so I have some time to digest your comments.

Denise

From: Brothers, Kenneth [mailto:BrothersK@dicksteinshapiro.com]
Sent: Tuesday, September 12, 2006 11:22 AM
To: DeMory, Denise
Cc: Andelman, Ethan; Fink, Jacky
Subject: Draft comments on proposed statements of facts

Denise:

Enclosed are our initial comments on your proposed joint statement of facts. We may have further comments, but wanted to get this to you as quickly as possible. I await your call, as well as your comments to our proposed statement.

<<DSMDB-#2141613-v3-edited_statement_of_facts.DOC>>

Ken Brothers

9/25/2006

Please note my new contact information:

Dickstein Shapiro LLP

1825 Eye Street NW

Washington DC 20006

direct (202) 420-4128

phone (202) 420-2200

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brothersk@dicksteinshapiro.com

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